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ORIGINAL ESSAYS AND CASES.

ART. I.—*Remarks upon the use of* EMETICS, *in the first stage of Malignant, or Congestive Bilious Fever; during the months of August, September, October and November.*

BY GUY W. WRIGHT, M. D.

CONGESTIVE bilious fever, is considered by some as objectional, in consequence of its too limited application, for so general a disorder as fever; it meaning, arbitrarily, a congestion of the portal circle. *Malignant*, has been preferred by them, because it only implied the condition of the whole system, wrought by the disease in question, without reference to any local, or morbid state of one or more tissues of the body, to the exclusion, or exemption of the other parts.

However, I am inclined to prefer, in place of a better, the first name; for I defy any competent physician to look upon a patient, labouring with this fever, without being satisfied of this immense accumulation of blood in the central large vessels. This situation of the blood is what he must remedy, or lose his patient in thirty-six or forty-eight hours, and often in a much less time.

I would hardly be asked why I was so certain of this state of the central blood vessels: but for the purpose of exhibiting, as clearly as possible, the effects of *emetics*, when

this is the case, it will be necessary that, a brief view of the symptoms should be spread before us.

Symptoms are more or less deceitful in many diseases, but particularly so in this, and before entering upon a description of them, I will detail, the following, as they occurred.

The first case of it, I ever saw, was in the fall of 1821. The patient, Mr. U. Y. complained for two days, though able to walk about, and died on the third, under the operation of an *emetic*, of tart. antimo. and pulvis Ipecac. He was a labouring man, of good constitution, aged about 35.

The second, in the fall of 1822, was B. W. L. of robust form and constitution, æt. 37. He had visited Louisville, in August of that year, in good health, and returned in three weeks, apparently well; then, went with his wife eight miles into the country, became indisposed, but able to walk about, and join his friends in their athletic amusements. He in this condition took an *emetic*, and during its first operations, was able to walk from one room to another; but died 12 hours after he took it.

The third was Mr. C. a clerk on board of a steam boat, in the fall of 1822, æt. 24. He walked from the river to his sister's, one fourth of a mile, took an *emetic*, and died the next day. His constitution was always good, up to this attack.

The fourth was Mr. F. æt. 35—constitution good. He was unwell, though able to walk about his room, for three days:—took an *emetic* at night, and died the next morning at 9 o'clock. This was in the fall of 1824.

The fifth. In the fall of 1824, Mr.——, who was a little indisposed, walked to the apothecaries, procured an *emetic*, went home and took it, and died in 15 hours; constitution slender; æt. about 40.

The sixth. In the fall of 1826, Mr.——, aged 50, a boater of stone; constitution rather infirm; felt feeble on Saturday, went, procured and took an emetic on Sunday morning, that he might be able to work on Monday, but died at 9 o'clock on Sunday night.

Seventh case. In the fall of 1827, Mr. D. sent to a physician, for a prescription, who sent an emetic. He took it, and died in ten hours. His age about 26; constitution formerly good, but impaired by intemperance.

Eighth case. In the fall of 1827, Mr.——, aged 19, very stout and robust,—a tanner; felt unwell when in the tan yard, —left it and came to town, two miles, and when able to walk about, took an *emetic*, at 9 o'clock, A. M. and died 5 o'clock, P. M. of same day.

Ninth case. In the fall of 1827, Mrs. W. felt indisposed, sent for, and took an *emetic*. Two hours after I was sent for, and found her extremities cold to the body; great restlessness and difficulty in breathing: pulse barely perceptible; muscular prostration extreme. The whole body bathed in a cold clammy perspiration. The surface shrunk and purple. She, by remedial means, hereafter to be described, recovered within five days.

The above cases all occurred under my own observation; though, in justice to myself, it will be proper to state, that they were not, with the exception of the two first, my patients, until they had taken the *emetic;* and a part of them I only saw as counsel.

I know of many other cases, which have presented themselves in the practice of Physicians of this city, and its environs. They are in fact, increasing each season, since their first appearance in 1821; but the above will be sufficient, for all purposes of exhibition in this essay.

It has been, with me, a matter of inquiry, whether, there is any peculiarity of disease, relative to the effects of emetics, or improper time of exhibiting them; or that our importations of tart. Antimo. for the last six years, have been of a poisonous and adulterated quality.

The latter seems to me not to be the fact, for in all other cases it acts as it should do; and the same, or a similar effect is produced by Ipecac. when administered in this congestive fever.

It would follow, then, that the condition of the system,

instituted by the disease, forbids, or sinks under the *nauseating* effects of the emetic, and therefore it is improperly exhibited, notwithstanding the symptoms indicate, by analogy to former practice, their administration.

Every case, that occurred within my knowledge, has been during the months of August, September, October and November, and most of them in the months of September and October. And such has been the awful effects of *emetics* in those cases, that I have, together with others of my professional brethren, proscribed them, during those months, in all cases where there was the least suspicion of a lurking aptness to portal congestion. This has been necessary, from the deceitful and insidious approach of the disease.

Symptoms. It is very difficult to describe the pathognomonic symptoms of this morbid state of the body, which proscribes the admission of nauseating medicines. It is not the *pneumonia biliosa*, noticed by Dr. Cartwright, of Natchez, in which he gave from six to ten grains of tart. Antimony every three or four hours. It is not the ordinary bilious fever of this climate, unless we admit it is the same, though of a higher and peculiar grade. In short, I know of no published description of its peculiarities.

There is nothing frightful, or in the least alarming, to the inexperienced, in its attacks. The patient walks about, uneasy and restless. He feels an occasional rigour. His countenance expresses anxiety, and his features are acute and altered. The extremities are cold, and more or less covered with a clammy sweat. The pulse is small, and oppressed, and feel as though there was a layer of cotton between the artery and finger—in frequency natural, the strokes being rather quick. The whole surface of the body appears shrunk, and of a purple colour. The tongue is of a dark red appearance, with its papillæ resting smoothly upon its surface; there is little or no fur upon it, excepting upon its remote extremity,—there it generally appears loose and easily removed.

This paroxysm passes over in from one to six hours, without fever; the hot stage never occurs, in fatal cases. When it does appear, it may be hailed as a favorable omen.

After the fit has run through, the clammy perspiration dries up,—the extremities become warm,—the spirits rise, and the patient concludes himself well, or nearly so, until the next day, same hour, when all of those symptoms return, aggravated.

During the apyrexia, there is always manifestly a redundancy of bile. I have seen it so mixed with the saliva, that, when the patient was asleep, it would run from the mouth, and colour the bed linen a deep yellow. This appearance of bile is what has led so many physicians and patients to the use of emetics. It has the effect to throw off from the stomach, incredible quantities of bile, but it aggravates every alarming symptom, and is certain to make that paroxysm fatally the last.

The bowels are generally regular and natural; the intellect unimpaired till within a few hours of dissolution.

The last stage is always a frightful one. The patient rolls and tosses about on his bed, sometimes springing from it on to the floor, then falling back again as though dead. Constant moaning, expressing horrid sensations, not to be described. His legs and arms, to his body, cold as marble; the whole surface washed in a cold clammy perspiration, and of a dark purple hue. The skin upon his hands and feet is crisped and curled up, like the hands of a wash-woman who has been all day employed with her hands in hot soap suds. The pulse at the wrist is lost. Whilst the extremities are cold, the epigastrium is painfully hot to the hand. All this time the intellect remains good, sometimes to within one hour of his death. One patient, an amiable young man, on whom I was attending, in this disease, saw me at 12 o'clock at night, putting on my cloak to leave him, as I had given him up for lost, said very feelingly, "Don't leave me; don't give me up, I shall not die," and in one hour he was no more. Alternate spasms, which throw the body

into a great many unseemly and repulsive positions, supervene, and accompany the sufferer through his last one or two hours. The delirium and these spasms, appear, generally in company: sometimes I have seen during this state of things, frothing at the mouth and nose. For this condition there is no relief. I think, I risk nothing in saying, that no course of practice will arrest its progress; and the only termination is in death.

It has been combatted, by many of our best physicians, by calomel and opium in large doses; quinine and bark; camphor: carb. and aqua ammonia, brandy, musk, &c. have all been used, in large and in small doses, hot and cold, with no effect.

External irritants, artificial heats, such as covering the legs and arms with ground mustard and vinegar; boiled corn put hot about the legs and arms; the hot stimulating bath; blankets dipped in boiling whiskey, that had been filled and boiled with red pepper; hot spirits turpentine, hot bricks, and stones, bags of ashes, and sand, &c. all to no purpose. Towards the close the legs, feet, arms and hands would become heated, as a piece of dead flesh, and give to the hand the same sensation.

The only means of managing this disease, is to prevent its attaining this state of inveteracy; and to do this, is always to be on the alert, when fall fevers are prevalent, and cautiously observe the premonitory symptoms. Let me here repeat, that great care and circumspection is necessary to detect and distinguish the approach of this malady, from ordinary forms of autumnal fever. Still I think it may be done, in most cases; and if there is any appearance of the symptoms described above as pathognomonic, avoid, by all means, any medicine that has a direct tendency to produce nausea.

If these symptoms are happily discovered in time, and emetic medicines withheld, I believe, that in general the disease may be relieved,

We will now inquire into the nature of this congestion of

the central blood vessels; our evidences of its existence; and the modus operandi of emetic medicines, in consummating this fatal accumulation of blood in the portal circle and vena cava.

The first thing that presents itself to the observer is the morbid situation of the surface of the body. The skin is shrunk and hangs loosely about the limbs, which have lost their plump roundness, and is purple and cold. The superficial veins are empty. The capillaries are paralysed, and do not transmit the small quantity of blood, sent them by the weakened heart and arteries. What little they have received, remains stationary in them. By pressing the finger upon the purple skin, the blood will recede and leave the spot pale and colourless; but when taken off, it will slowly return and resume its morbid hue. The cutaneous nerves are insensible to their accustomed excitant, heat. No degree of artificial heat will excite them to a performance of their natural functions.

Here, I am inclined to believe, lies, in the concatenation of cause and effect, the second important link. The capillaries have a specific action, subservient, as an auxiliary to the heart and arteries, to the great function of arterial circulation. They have an action independent of the heart and arteries, which can be excited to a greater or less degree of morbid results. Suspend this capillary function, and its influence over the heart and arteries, and secondly the veins, will be equally felt with any influence either of those might assume, under morbid influence, over this connecting circulatory system. How they are paralysed in this condition of the body, is not known; but, notwithstanding, the fact is indisputable.

We see instances, frequently, of the importance of a healthful dermoid tissue; destroy but a small part of it, and death ensues in a very short time, as is often proven, in cases of scalds and burns.

The cutaneo-central sympathies of Johnson, are exemplified in all of these conditions. We may call them mu-

tual dependencies, or by what name we please—so it is, there is evidently a reciprocity of action, direct, between the surface and central viscera of the animal body.

This state of the capillaries is, no doubt, induced by the infarcted and oppressed situation of the abdominal viscera, which ultimately involves the thoracic organs. Now, is this influx and augmentation of blood, in the portal circulation, or in the vena cava ascendens? In most cases, and perhaps all, primarily, it is in the whole extent of the vena portarum.

The evidences are,—1. There is often discharged before death, large quantities of dark grumous blood, *per anum;* in others, after death. 2. The blood being locked up in the portal vessels, the general system suffers from its loss, as it would, if thrown entirely out of the general circulation; as is manifested in the invariable syncope, induced by the abstraction of from two to four ounces of blood from the arm.

Copious bleeding has been urged by some physicians; for, say they, by emptying the superficial blood vessels, you invite, by their wants, the blood from the centre to them, and thereby equalize the circulation. This will answer, when the vena cava, and right side of the heart are overcharged with blood; but when the accumulation is in the portal circulation, and its onward course to the heart obstructed in the liver, bleeding, by increasing the general prostration of the body, augments the main difficulty, and facilitates the fatal issue.

If we can induce a reaction, and get rid of this stage of collapse, then I agree, that bleeding may assist in the cure; and for what I know, render a return of the paroxysm less certain.

We have asserted above, that the accumulation of blood was in those vessels that return it from most of the abdominal viscera, through the liver, to the heart. Now, the opposition to this return must be in the liver; and it becomes necessary, here, to inquire into its nature.

It is well known to Anatomists, that the blood, which is sent and distributed to the viscera of the belly, is collected in the vena portarum, which enters the liver, ramifies and minutely pervades that organ; and finally, in connexion with the ultimate terminations of the hepatic artery, empties through a common capillary system into, and forms the hepatic vein, which conveys this hepatic and portal blood, united, on to the right sinus of the heart.

Now, where is the seat of obstruction? We have seen the capillaries of the surface paralysed, and failing to transmit the blood through them. Is not this precisely the case and situation of the capillaries of the liver? Have they not lost all power of inviting the blood to them? and if by other force a small quantity should be sent there, do they not refuse to convey it onward, and suffer it to stagnate in their cavities, and it in time augment the disposition, mechanically, and by oppressing their already weakened condition, consummate a complete arrestation of its movements? This situation of the hepatic capillaries, appears to me, to be in perfect unison with those of the surface of the body.

It requires no second sight to discover, how a great share of the blood of the body, should accumulate in the portal circle, when its return to the heart is cut off in the liver; and when all these vessels are engorged with blood, and it still forced into them through the cæliac and mesenteric arteries, they should burst in the liver, where the pressure is greatest, because they are the first filled, and finally in other organs, and discharge into the bowels, and pass off *per anum.*

In most cases, no doubt, the vena cava and right side of the heart are at the same time more or less congested. This general capillary depravity extends to the nourishing and sustaining vessels of the heart, as well as to the liver and skin. There is every symptom of oppression of the heart; the pulse are weak, feeble and smothered, and soon cease to beat at all. Its capillaries are unquestionably in the same condition of atony, forgetting the ceremony of

invitation, and the ability to recognize its accustomed stimuli, blood, suffering it to accumulate in its walls, until reaction is forgotten, and surrender inevitable. This is, indeed, attacking the citadel.

The lungs do not escape. They suffer the same condition of their transmitting capillaries; which is evident from the purpleness of the lips, and around the eyes; great anxiety and difficulty of breathing; constant puffing, moaning, sighing, &c. Finally, the brain is attacked, reason is dethroned, and soon after follows the final wreck, and destruction of what was so lately a living, healthy man.

Now, we have promised to consider the *rationale* of this effect of nauseating medicine, in perfecting this partial loss of capillary action.

The great difficulty and seat of the disease, in my opinion, is situated between the termination of the arterial, and the commencement of the venous circulation: or in other words, a total loss of action in the capillary system. This is general, and not confined to the skin, liver, lungs nor heart, but wherever they anatomically exist.

There is, in most cases, only a predisposition, or partial atony of the circulation, when the nauseant is taken, which induces an irremediable confirmation of this fatal state.

In some of those cases referred to above, tart. antimony was given in broken doses of from two to five grains. In others, ipecac. with tart. antimony. In others, ipecac. alone was used. Again, ipecac. and sulph. cupri: ipecac. and sulph. zinci, assisted by a decoction of eup: perfoliatum; but the effect was the same. The moment the patient became sick at the stomach, he was cold, purple, pulseless, and covered with a clammy sweat; restless, anxious, &c. which invariably ended in death. So I infer from this, that it cannot be from the quality of one kind of nauseant, or the quantity of either: but the effect of all, alike, to induce sickness at the stomach.

Some author, I think Dr. Johnson, remarks, that *emetics*

should never be given, when there is a redundancy of bile; but only, when there is a deficiency. In this disease, there are other reasons, this having its influence, why nauseating drugs should not be used. In the last stage, it has appeared to me, that both nauseants and stimulants, whether permanent or diffusable, had at endency to attract, and accumulate the blood in the large central veins.

The *modus operandi* of tart. antimony, which, according to the analysis of modern chemists, consists of protoxide of antimony, 42 parts—tartaric acid, 45—potass, 9—and water, 4—hence, a triple salt, and called by the French, "*Tartrate de potasse antimonie.*" Its therapeutic virtues are, emetic, diaphoretic, expectorant, *alterative;* in certain repeated doses, cathartic; and externally applied, rubefacient. It also possesses the power of reducing increased arterial action, and used as an auxiliary, in all cases of high vascular excitement; except when the stomach is the seat of inflammation, or morbid irritation.

Latterly, it has been recommended by Dr. B. O. Carpenter, of Bainbridge, Ohio, as an important and specific remedy in mercurial inflammation of the salivary glands. He gives it in small, repeated, cathartic doses.

But the inquiry is, how does it act in this, forming, disease.?

Above, we have considered the capillaries of the whole system, and especially of the liver, as being in a weakened, torpid condition; though capable of resuscitation, if not farther paralyzed by the exhibition and influence of nauseating and exhausting medicines.

They are debilitated from some remote cause, which condition, invites the blood, that rests and accumulates there. This suspension of vitality and tonicity, might be regained, if not augmented and extended beyond the power of reaction, by the relaxing and exhausting effects of the *emetic.*

Where is this seat of depravity in the large central vessels? Is it in the extremities of the vasa vasorum? Do

they neglect to perform their healthy conservative actions? I see no reason why a paralysis here, should not impair and destroy their ability to a performance of a natural and salutary effect, as well as a similar condition of the preservative and sustaining vessels of the heart, should interrupt and prostrate the functions of that great and important organ, so well fitted by nature, to resist morbid influences.

In relation to the specific action of *emetics*, in consummating this partial loss of tonicity in the great circulatory vessels, we can do little more than state the fact of its existence. Many external agents have a direct influence on the capillaries; extreme cold has the effect to destroy, for a time, the action of the capillaries of the surface, as is obvious in the purple color of the face, neck and head of those, long exposed to the cold freezing air of a northern winter's day: and when reaction takes place, either by artificial heat, or exercise, the parts become tumefied, red, and extremely painful, which I have often experienced in my own person. If the cold is extreme, reaction never takes place, and death ensues.

Extreme heat, fear, anxiety, long continued trouble—drunkenness,—gluttony, a continuation of hot weather,—damp sultry atmosphere, sudden excitement by good or bad intelligence, fatigue, ennui,—watchfulness,—deep study, &c. all have the effect to impair, or suspend the function of the capillary system.

When certain organs of the human body are partially impaired, or their excitabilities weakened, suitable remedial agents, will gradually restore them to their pristine strength and usefulness; but if others are introduced, they will exhaust this remnant of natural susceptibility, and augment the malady.

This I consider to be the effect of *nauseants* upon the general capillary system, when it is first paralyzed by the influence of morbid causes, and sequently congested, and detracts from its, already, inability to react upon the superabundance of blood.

It may act for a moment, with its salutary influence; but the susceptibility of those vessels to revive and profit by this aid, is soon lost; or the residue of excitability is now worn down, and then its remedial virtues are transformed into an active morbid agent, and become an auxiliary to the enemy, and by this additional strength, he conquers, admitting of no conditions of capitulation, short of death.

This capillary system is of more importance to the Pathologist and Therapeutist, than is generally conceded.

It appears immediately concerned in every thing relative to the generation, perfection, developement, support, continuance and destruction of the animal body. Here it is nourished, or wasted. Here it is broken down, and here it is rebuilt. Here is sensation. Here animal heat is developed. Here we are made sensible of the intrusions of all foreign bodies; and here, unquestionably, the effect of all morbid agents are first detected, and meet with a resistance.

It will be understood, that I consider these extreme transmitting vessels, as accompanied by the sentient termination of nerves, which gives them influence; and all the phenomena, exhibited here, are the products of a joint action of both systems.

I will now give the best mode of practice, and the only one, within my knowledge, that ever proves successful, of treating this, above described, congestive bilious fever. I will not say that it is the best the case will admit of: others may at no distant day, be discovered.

Treatment.—Emetics are not to be used, until the stage of collapse is past, and a regular diurnal recurrence of reaction shall have been established, permanently and unquestionably, by the general, equal diffusion of blood, and nervous energy throughout the whole body.

In this state of things, if the reaction is violent, venesection will be indispensible. The effect of blood-letting will, in all cases, determine whether the congestion is in the

vena portarum, or ascending vena cava, and right side of the heart. If the blood is thrown from the general circulation into the portal vein, and its return to the heart cut off in the liver, very small bleedings will produce syncope. In short, if it is opposed in each lobe of the liver completely, the patient will faint with the loss of three ounces of blood. On the other hand, if the blood is in the common circulation, though accumulated in the right side of the heart, its appending veins, and the lungs; the bleeding from the extremities, by lessening the amount sent to the centre, and giving less resistance to the arterial circulation, will dispose the arterial side of the heart to invite the blood from the overcharged and oppressed venous side, and in this way, do much in equalizing the circulation and relieving the congested parts. I should, in this state, be inclined to bleed largely, and effectually, even to syncope.

I have often tried emetics, in all stages of the disease, but was never satisfied with their effects; and in the two first cases, had the lamentable mortification, in *fearing* that I had been instrumental in facilitating the fatal issue, and the only consolation I had was, that older physicians than myself, have run into the same error.

I have in some cases bled, but cannot recommend it, excepting where the reaction or febrile stage is high and well established. But as I remarked before, when this takes place, it is no longer our disease, and comes under the most usual practice of common bilious fevers.

Calomel, in large doses, combined with opium, or camphor, or musk, or assafœtida, or carb. ammonia, and finally, with four grain doses of quinine, repeated every three or four hours, I have found, with the assistance of *hot* spirits turpentine, applied over the whole body, followed by flannels dipped in it, and wrapped about the limbs and upon the abdomen, to be the only safe and sure means of relieving the congested parts and equalizing the circulation, and inducing a reaction. But when once gained, it requires great caution and perseverance to prevent a recurrence of

this collapse. It may return on the first or second day; though with me, it has appeared oftener on the second. The calomel and diffusable stimulants should be crowded upon the patient with great zeal. The paroxysm should be anticipated by blisters upon the extremities, and over the abdomen; put on in time, that they be in the greatest state of excitation at the time the paroxysm is expected; which, in the worst cases, is sure to be from one to two hours earlier than its predecessor.

From four to six and eight grains of the sulph. quinine, combined with two or three of opium, should be given, that the system may be under its influence at the time of its expected return.

These, assisted by hot bricks, or other dry substances, heated, and placed about the feet and legs, together with the free use of warm tea drinks, will, in most cases, be sufficient to prevent the fit.

It will be necessary to resort to these means with more or less energy, until the period of the third paroxysm has passed, after which the disease mostly puts on the common character of bilious fever.

The old plan of correcting the secretions, by calomel and other alteratives and expurgators, before we administer tonics, diffusable stimulants, &c. will not here answer the purpose; they should be thrown into the system, in connexion with the mercury, especially with elderly persons, and those of infirm constitutions; and more or less modified, in all, without regard to the appearance of the tongue, urine or stools, until this stage is perfectly overcome.

Persons who have once had this peculiar quality of autumnal fever, and recovered, are very liable to annual returns of it, though not in the same degree. It mostly appears in the character of an ordinary intermittent fever, growing milder every successive year. Its shock upon the constitution is very destructive; two or three years is generally required to a perfect recovery. Females and children are less subject to it than males, and when they do have it, it is uniformly milder.

ART. II.—*Observations on the Minor Epidemics of Marietta, in the year* 1824. BY DR. SAMUEL P. HILDRETH.

THE following observations formed the basis of a discourse read before the 12th Medical Society, at Marietta, in 1824. The subject was a diffusive one, embracing a history of the diseases that followed in the train of the great Epidemic, that visited the borders of the Ohio, in the years 1822 and 1823.*

Since the early days of "the father of medicine," the intelligent and observing physician, could not but notice the host of minor diseases which preceded and followed every great epidemic; although in full activity, other diseases were absorbed in it, or obliged to put on its formed appearance. The writings of Sydenham, who is justly entitled to the honour he has acquired of being styled the English Hippocrates, abound in observations of this kind; and one of the great excellencies of his works consists, in the accuracy and care with which he has described the minor disorders that accompanied the great epidemics of those days; which, like the light troops of an invading army, formed the advanced and rear guards of the same. And as nearly related to the same subject, we find his observations on diseases, connected with remarks on the vicissitudes of the seasons, and the changes of the weather, which many times, like the "ground swell" of the ocean, give notice of the coming storm; warning the careful pilot of the approaching danger, and to be prepared for the trial. And although we now live in a day when "the lights of science" are scattering a thousand rays, and illuminating the darkest subjects, it well becomes us not to neglect the examples of those great masters, who taught that experience is better than speculation, and that in medicine as in law, facts are

*A description of that Epidemic, as it appeared at Marietta, Ohio, was published in the 9th volume of the Philadelphia Medical and Physical Journal.

the only things to be relied upon. In history, the most interesting portions, are those which give the particular details of an individual's actions and life; so in the practice of medicine if we could have the details of a season, they would be more interesting and useful than the treatment of an isolated case. There are few physicians who, in the course of several years practice, have not discovered some new remedy, or some peculiar manner of treating diseases, which if known, would be useful to others. I hope the subject may be considered and receive the attention it merits.

The winter of 1823 and '24, was comparatively healthy; the inhabitants, although feeble from former diseases, were generally well, with the exception of scattering cases of intermittents. Early in the month of March, the measles made their appearance amongst us, and in this town were confined to the east side of the Muskingum river. Most of the cases were very severe; being attended with violent inflammatory fever and great irritation of the lungs. There was no difficulty in procuring a free eruption, if the patient was not kept too warm and drenched with stimulating hot teas and drinks. For the purpose of promoting the eruption of measles, cool air, cool drinks, and purging with neutral salts, were found to be very effectual. If the fever was very high, bleeding was practiced, with the view of facilitating the eruption by reducing the arterial action, and relieving the engorgement of the lungs, which in some instances was so great as to threaten suffocation. In young children the symptoms resembled croup, and required the same treatment to relieve their breathing. In others it affected the head, with all the symptoms of hydrocephalus; and in one instance, that of a child of ten months, ended in convulsions the tenth day of the disease, similar to those in fatal terminations of inflammation of the brain. In adults, the lungs suffered most; going through as tedious a course of expectoration as in cases of peripneumonia. By the middle of May the measles had disappeared, and but few cases came within my knowledge after that time.

The month of April, 1824, was marked by great vicissitudes in the weather; the thermometer, having in one or two instances undergone a change of forty-four degrees in the space of eighteen hours. These sudden changes in the temperature of the atmosphere, had considerable effect on the human frame; producing several cases of cynanche tonsillaris; and in persons disposed to intermittents, it was certain to bring on an attack of this disease. Nearly all the cases of intermittents, were of the tertian type.—They were generally removed in a few days, by the following course. When the pulse was full or hard, bleeding was premised; and if the blood was sizy or inflammatory, repeated two or three times. The stomach and bowels were evacuated, by calomel at bed time, followed in the morning with a purging draught of sal. Eps. senna and manna. This kind of purge I have found more effectual in discharging bilious sordes and tough mucous than any other. Its operation seems to be more energetic on the stomach and duodenum, than on the large intestines; and it evacuates, and stimulates into a more healthy action that part of the viscera, which at first view would seem to be only under the controul of emetic medicines. After free evacuations from these medicines, the complaint in many instances gave way, without the assistance of other remedies. But if it still continued, bark and snakeroot were used; or opium and camphor, administered in such doses as to destroy the concatenation of symptoms, and rouse the system into action, before the debility and depression took place, which is the certain precursor of the cold stage. A regular and continued use of some tonic medicine, was necessary to prevent a recurrence of the disease. In obstinate and difficult cases of this intermittent, the most certain and effectual remedy has been the following: ℞. Ant. Tart. ℈i. L. Laud. gut. c Ess. Menth. Piper. xl gut. aq. fervid. ℥ vi. misce. Of this preparation, one tea spoonful, or sufficient to create nausea, was given every two hours; commencing ten or twelve hours before the cold stage. In the hot stage it

might be omitted or continued, as seemed necessary. It was usually omitted for eight or ten hours in the intermission, that the patient might have time to eat and digest his food. This medicine, when regularly administered, was certain to break the most inveterate ague, in from three to six days. It never failed in a single instance. Its operation seems to be stimulating and tonic. It overcomes that gastric irritation, and debility, so common in all obstinate agues; opens the pores of the skin, and the appetite and strength are improved under its use.

A number of cases of enlargement of the spleen came under my observation, in the course of the spring, mostly in March and April. As the weather became more steadily warm, the complaint was less troublesome. The remedies most effectual were purges of calomel, in thirty grain doses, followed by Super Tartas potassæ frequently repeated; with a large blister over the spleen. This course usually removed the enlargements, and carried off any symptoms of dropsy that might be present. I know of no instance where suppuration took place. The strength and tone of the system were much benefitted by a free use of chalybeates. It was remarked that nearly all the cases of enlarged spleen were amongst females; whether this was owing to the female system being more incident to the complaint, or purely accidental, I am not able to determine; but such was the fact.

Several cases of Cynanche Tonsillaris came under my care in March and April. The mode of treatment was to bleed freely, as early as possible; cleanse the stomach and bowels with a purge of calomel, followed by Oleum Ricini; apply volatile liniment over the affected parts, and use a strong gargle of mustard seed tea; the stronger it is the more suddenly its beneficial effects are perceived. Its operation is that of a powerful stimulant and sialagogue; exciting the salivary glands into action, and by the free discharge of saliva, the tonsils are relieved of their obstruction and swelling. Since I have been in the practice

of this course, the most beneficial and flattering results have followed; and where applied early in the complaint, has not been known to fail in effecting a cure, without that tedious process of suppuration, which many times attends the disease. After the measles appeared, all attacks of acute disease were attended with more or less affection of the lungs: whether that constitution of the atmosphere which is favorable to the production of measles, has an influence on the lungs, I know not; but am induced to think that when any disease appears as an epidemic, it acquires more or less power in assimilating other diseases to its own likeness, giving a decided cast to the features of every complaint that may appear within reach of its influence. This it seems was the observation of Sydenham, that critical observer of the laws of nature in the government of diseases. And this I know to have been the fact in the great epidemic of 1822 and '23; every disease that appeared was compelled to acknowledge its reign, and put on the intermitting type; whether rheumatism or pneumonia, all had to submit to its sway; and even one case of long continued and inveterate epilepsy was conquered by its power, and for three months lay in quiet submission under the potent arm of a tertian ague; when previous to this the epileptic attacks had appeared every ten or twelve days.

The month of May was unusually wet and very cool; frost appearing as late as the 26th of the month. Vegetation was at least ten days later than usual. This cool weather was not unfavorable to health; and by the last of May most of the people were free of their vernal tertians. In this month I attended a case of abortion, in the third month. It was caused by over exertion in drawing water from a well. The flooding was very excessive, and continued after the secundines were thrown off. Most of the old remedies were tried, without much benefit. There being considerable heat in the hypogastric region, a large blister was applied, with good effect. But the greatest relief was obtained from drinking freely of an infusion of the bark of

the "Prunus Virginiana," in *cold water;* it checked the flooding directly, and relieved all the distressing symptoms. I have since repeatedly used it in similar cases, and with the like beneficial result. The weather, in the month of June, was pleasant and agreeable. Winds mostly from the north, until past the 20th of the month. The last week in June was very warm, the thermometer rising above 90 degrees, in the shade, for several successive days. Very few cases of Cholera made their appearance, and these could generally be traced to a free use of cherries or currants. No case of continued fever fell under my observation in the course of this month; nor did I hear of any in the country, that could be called by any other name than intermittent. Tertians still continued to shew themselves occasionally amongst those who had been afflicted with this tedious malady in the spring months, but the health of the inhabitants was generally good. A few cases of Chicken Pox occured amongst the children, and at the close of the month a few cases of Measles. One of these cases was that of a female in the seventh month of pregnancy, and was very severe. The violence of the cough and fever, notwithstanding two or three free bleedings and a full antiphlogistic course, brought on premature labor. The child appeared to be laboring under the same malady, having a cough and difficult breathing; it lived about 12 hours.—The woman recovered from the measles more rapidly, than she otherwise would have done, had miscarriage not taken place. The forepart of July, after the 9th, was very wet, and weather warm. About this time several cases of fever made their appearance in the country, and two or three cases in the town. Bowel complaints, became more frequent amongst children; for which, in addition to my favorite remedy of calomel in small doses, frequently repeated, an infusion of the "Bene" leaf, in cold water, was found to be very useful. It imparts a fine and pure mucilage to the water, without altering the color or taste. Of this beverage, children drink as freely as of clear water—its good

effects are apparent in a few hours, by a general abatement of the most distressing symptoms. It is a favorite adjunct with me, as children take it without force, and with apparent satisfaction. In the month of August the heat was moderate, and weather generally fair. But little rain fell in the course of the month. Bilious fevers were more common in this month; and several cases were of a malignant type. These cases, as in former years, were under the control of medicine, if advice was called early in the disease, and the patient put under a mercurial course. The fever becoming mild and tractable in nearly every instance, as soon as the system was affected by the mercury. Several cases of Typhus mitior, also appeared in this month. They were managed successfully, after moderate evacuations from the stomach and bowels, with affusions of cold water and a liberal use of muriatic acid, to the extent of two drachms a day, in a syrup of loaf sugar; with a prudent use of wine and nourishment on the decline of the fever. In the course of the month a number of cases of scarlatina anginosa, came under my care; the first I had seen during a residence of eighteen years in Ohio. Most of the cases were mild; being attended with moderate fever, swelling of the parotid glands and tonsils, a thickly coated tongue and no eruption; running its course in a week. A few others were attended with the scarlet eruption, violent heat and itching of the skin, and very sore throat; the fever continuing for twelve or fourteen days, and leaving a swelling of the feet and legs, with desquamation of the fingers and toes, the tumefaction of the glands returning on exposure to cold, for several weeks. None of the cases were fatal; the disease being manageable by pursuing the antiphlogistic course, with a free use of diluted vitriolic acid, as a drink and gargle.—Where there was much swelling of the parotids, blisters were applied with apparent benefit; and to allay the excessive heat and itching in the skin, which attends this disease, cold water was applied often, with a sponge or soft linen rag. It was confined chiefly to children under ten years of

age; a few cases occurred amongst adults. In these the disease made no appearance on the skin; but was confined to the glands and throat, and attended with considerable fever. The scarlatina anginosa had not been in this part of the State since the year 1795 or '96; at which time it was prevalent in Marietta and Bellepre, being of a malignant type and very fatal to the children of the early settlers; some families losing as many as six or seven, and all suffering more or less.

The fore part of September was very cool and considerably wet. The thermometer on the 9th falling as low as 52 degrees, and continued low for a number of days. This cool weather had but little apparent effect on the health of the inhabitants. Intermittents were more common, but few cases of fever occurred, less than in the last month.—Some cases of dysentery appeared towards the end of the month. They were treated with emetics, followed by calomel; with half an ounce of Ol. Ricini, morning and evening, and opium sufficient to allay the pain. Enemata of Oil, Laudanum and starch, with occasional doses of Ipecac. and Opium to promote diaphoresis; drinks of red elm and the wild cherry tree bark; with food of farinaceous substances, or milk porridge. This course strictly followed, very rarely failed of success.

The fore part of October was pleasant; the last of the month was cold, attended with severe frosts—there was but little rain, and the weather generally fair. Bilious remittents had nearly disappeared by the middle of the month, and by the first of November, not a case existed within my knowledge. Intermittents still continued, but were not common. At the setting in of frosty weather, the latter part of October, many people were affected with catarrhal complaints.

In November the weather still continued dry and quite cold. Only one case of fever came under my care; it was of the typhoid type, and successfully managed under the course, as detailed in August. Several cases of Cynanche

Trachealis, or Croup, occurred in this month. They were treated with an emetic of *sub-sulphate of mercury*, made to act very powerfully, and followed by a large dose of Calomel; if this failed to relieve completely, as it very rarely did, nauseating doses of acetum scillæ and seneka polygala, were given at short intervals, with repeated doses of spts. tereb. in quantity of 15 or 20 drops in cold water; which seldom failed to relieve the cough and breathing; and gradually to cure the disease. If there was much heat, or hardness of pulse, bleeding was the first thing attended to; if the heat were moderate, the mercurial emetic answered every purpose—where the breathing continued bad, with great dryness of the fauces, some thin oil, or volatile liniment was applied to the throat and upper part of the chest, and covered with thin flannel; if this did not relieve, soon, a large blister was applied over the thyroid cartilage from ear to ear, and where it produced a free discharge of serum, afforded sensible relief. The warm or tepid bath, was also of great benefit; diverting the blood from the vital parts and large vessels to the surface; opening the pores and relieving the breathing; and especially so, if used after free bleeding. If irritants were used to the feet, they were composed of onions, bread and milk, boiled together. Under this treatment, very few cases of croup proved fatal.—It is said that a strong solution of nitrate of silver, applied to the fauces and tonsils with a hair pencil, has been used with good effect, in preventing the formation of the fatal membrane, or exuded coagulable lymph, but I have not known it tried.

The weather in December was generally pleasant, and the inhabitants healthy, with here and there a case of tertian ague.

Marietta, Ohio, November 21, 1827.

ART. III.—*An account of the Cynanche Maligna, as it has appeared in Paris, Kentucky, and its vicinity, at different times since* 1821. BY DR. LLOYD WARFIELD.

IF we open medical books containing accounts of this disease, we shall find, as Dr. Hamilton in his work on purgatives has said, clouds overshadowing the practice recommended and pursued for its cure; and it might be added, confusion in its nosology. To remove the first, it is the opinion of the same author, that the light of actual experience should be presented to the profession, in the form of histories of the disease as it may have presented itself in different places, and the treatment which may have succeeded best in its cure. It cannot be supposed that this disease is in itself an incurable one, although many thousands have been victims of it; but like many other acute diseases, it appears at different times, and in different places, with varying degrees of severity, and curable by very different remedies. It is then important, that the treasuries of medical science should contain all its observations, both in character, and the medical treatment united to it.

To avoid the errors which might grow out of nosological arrangement, I have preferred retaining that name, which indicates to the mind in the clearest manner, the situation of the disease and something of its nature. Angina and Cynanche are equivalent terms, and have been long used in medical nomenclature, to signify inflammatory swellings about the throat; and Maligna or Gangrenosa appended to either, indicates the nature of the inflammation. The whole of the practice in general suited to this disease, is founded upon a knowledge of these two circumstances. It appears then to be very strict nosology, when the nosology develops two of the most important circumstances to be attended to in the management of the disease; and until better reasons are given why it should be called Scarlatina

Maligna, I shall content myself with retaining its old name. I do not wish to be understood as wishing to discard Scarlatina Maligna from medical nomenclature, but let it be confined to proper bounds, as signifying one of the grades of Scarlatina, and not as standing in the room and place of a disease, which appears frequently without any efflorescence in the skin.

It may be best to precede the account of the disease, with some definition of it. It is an inflammation of the mucous membrane of the throat, of the sub-acute kind, running quickly into mortification, and accompanied with more or less fever of the typhoid type, and frequently with an efflorescence on some part of the skin. The symptoms distinguishing this disease from others of the genus, and also its own varieties, may be found in nearly all the systematic writers, and to them reference can be made.

With us the Anginosa Gangrenosa, or Cynanche Maligna has appeared epidemically and sporadically; as a summer and autumnal disease; with much mildness, and also with great severity. In the year 1821, so far as I know, it made its appearance here for the first time, as a disease among children, while other contagious diseases were prevailing: as measles, hooping cough and mumps, preceded by some of them and succeeded by others. It prevailed as an epidemic, and an autumnal disease, destroying nearly all who were attacked by it, and alarming parents and physicians, and so leading to an idea that it was incurable. The mode of treatment was essentially antiphlogistic, according with the practice of Rush on Scarlatina, and Hamilton, in his treatise on the same subject.—Subsequently, a practice has been pursued through all the successive visitations of the disease, and in the conclusion of that of 1821, which has been with me, I may say, infallible; having lost no case since its adoption. It will be sufficiently set forth, in the conclusion of this paper. I think the epidemic was more violent in 1821, than it has been at any period since; though this may have grown out

of the circumstance of the disease going on to its worst stage, nearly every case ending in death. Nearly all the local and constitutional symptoms recorded by the different writers, presented themselves in its course. Since that period the disease has either been in its nature milder, or has been rendered so, by an early attention to the use of such remedies, as have been calculated to cure it. In general the sporadic cases of it have disappeared in the summer, and those of an epidemic character in the fall. While writing, I have under my care three cases of the disease, one of which has presented a formidable appearance, but has nearly given way to the treatment. This fall I have also noticed cases of swellings about the throat, of a very painful, and in some cases an obstinate character: they were most readily subdued by a fomentation, which I have universally used in the sore throat. So far as I know, the cases of sore throat have been in most of their symptoms alike, since 1821, and admitted of a similar treatment. Its appearance has been usually preceded by a changeable or cool state of the weather, when occurring as an autumnal epidemic. It has spread in some families by contagion, and to those in the neighborhood who have been visitors of the sick. It has not at all times been confined to children, but has attacked adults: it has no respect to colour, appearing among both black and white, and without a perceptible difference in its character. But few cases, if any, have been lost, where a suitable treatment has been pursued. The disease has generally run its course in 10 days, then going off with a separation of the sloughs, a subsiding of the inflammation of the throat, and a gradual disappearance of fever, with a return of appetite and strength.

I may introduce the account of the symptoms of this disease, by stating, that it commenced in a mild and deceitful manner; would continue so for days, and then suddenly grow worse, and perhaps take off the patient before any apprehension of danger was felt. If in a child, it would first be observed, that it had a catarrh; having some

hoarseness, and running at the nose; upon inspecting the fauces, a redness would appear, more or less dark, with swelling of one or both tonsils, and in general they would have several ash colored specks on them. With these symptoms, slight difficulty and soreness in swallowing would be complained of, and likewise dull pain in and about the tonsils. Upon examining the throat externally with the finger, the swelled tonsils would be felt, and by pressing them the pain would be aggravated; but no unusual heat or redness in the skin would be observable. Upon making a more minute examination the pulse would be found accelerated, being either soft, small and quick, or full, soft, and quick, skin unusually hot, with thirst, and restlessness or coma, a pale or flushed face; more commonly the former, and lastly, a dull, humid, and red eye. These latter symptoms were aggravated in the evening. With all of them present, the patients would maintain their strength wonderfully, and perhaps likewise their appetites. This state of things would continue for three, four or five days; the patient walking about, and often thought to have no more than a cold with a sore throat, from which a speedy recovery was anticipated. But as has been observed, these appearances were all deceitful, and led on invariably, if let alone, to a most alarming and often fatal reverse. Suddenly, in a few hours from the time the patient was walking about, he has been snatched away by death, and at other times, all the alarming symptoms belonging to the last stage of the disease would be ushered in. If however, the patient had a proper apprehension of his real danger, and suitable remedies were resorted to, the last stage would be prevented, and the disease brought to a close in its first.

Now it may be remarked, that the accounts we have of this disease, very generally advert to a great loss of strength. And muscular weakness is so generally present in a typhoid state of the system, that we can hardly conceive of such state, connected with retention of muscular strength, which led the physicians here to think this disease

required the antiphlogistic treatment, and indeed it is well calculated to deceive. This possession of strength, may be in some degree attributed to the mildness of the first stage of the disease; but I have seen it continue to within a few hours of death, while a very considerable fever occurred every day, with extensive ulceration and swelling about the throat. In the adynamic states of the system from other causes, (as in some mortifications of the extremities,) I have seen the patient sit up, evincing considerable muscular strength for an hour or two, and die in the paroxysm of fever, occurring in the evening of the same day. It is also true, that in the disease before us, the strength did decline in proportion as the fever and local disease increased. But it should be distinctly kept in view, that either the loss or possession of strength, bore no just proportion to the actual danger of our patients in this epidemic.

Again, if we look to the accounts of this disease, we shall find, that it generally runs *quickly* into a most alarming state. In one or two cases, such was the fact with us; but in much the greater number of cases, it progressed as above stated.

Again, an efflorescence of the skin, upon the 2d, 3d, 4th, or some subsequent day, has been commonly noticed in this disease. I have not seen a single case of it, as I recollect, attended with such symptoms.

Again, a flushed appearance of the face has been generally noticed. In this epidemic, the face, in nearly all the cases, looked pale. In some instances, in the evening exacerbation it was flushed, while it was uncommonly pale in the remission. This symptom corrected the undue influence which the retention of strength had over my mind, and led me to believe the disease essentially a disease of debility. Looking upon these symptoms as distinguishing our epidemic from most of those of which we have accounts, it has been thought proper to bring them into particular notice.

In resuming the account, we come to the phenomena of the second stage. In this stage, most of the symptoms of the

first were aggravated, and others superadded. The disease in the throat assumed a more alarming character, the inflammation extended, the ulcers enlarged and became black, the breath emitted a fœtor, and the general swelling of the throat increased. With these alarming appearances, a rattling was heard in respiration, and swallowing was difficult. Sometimes a bleeding from the nose and throat, and looseness of the bowels, attended. Loss of appetite, increase of fever, and loss of strength, marked the last stage. The patients, in this stage, were generally comatose or delirious. This state continued, in most instances, but a short time, the patients dying or getting better; but the greater number died after falling into this stage.

The remedies we used in this disease, were such as acted upon the parts affected, or upon the system at large. Of the latter class, emetics deserve the first notice, as they were prescribed in as early a period as possible. But at any period of the first stage they might be used safely and beneficially. I usually gave a small proportion of Tartar Emetic in combination with Ipecac. This emetic I have had occasion often to administer twice in the same case, and I think with advantage. I have not observed any injury to grow out of the use of emetics, while they unload the stomach of bile, phlegm, and crudities; and appear to favor the healing of the ulcers. I have taken care that they do not disturb the bowels too much, controlling any such effect, with astringents or opiates.

Although purgatives are very generally prohibited in this disease, we found them of benefit, when cautiously and properly used. It has been my practice to administer them daily, so as to procure two or three stools, but never to excite free catharsis. I have selected the mildest of the catalogue, as Epsom salt, rhubarb, magnesia and senna.—Calomel was used, but it aggravated the affection of the throat, and was therefore abandoned. When prescribed, it was in moderate doses, and not often repeated. Mild

purgation lessened the fever, mitigated pain in the head, and prevented, so far as I could judge, any subsequent disturbance of the bowels. I could perceive no increase of debility following it.

So far as the above remedies are antiphlogistic, such plan was admissible and pursued; but it is doubtful whether it is most tonic or atonic. Dr. Hamilton is of the first opinion, when he recommends purgatives in typhus fever, and it is equally the opinion of many other eminent Physicians. However, medicines of a strictly tonic and stimulant character, have been most relied on, and more perseveringly used as curatives, than any others. The principles, requiring the administration of such remedies, have their existence in the essential character of Cynanche Maligna, it being as before remarked, an adynamic disease, in which the vital organs perform their functions feebly, and require for their support, and to enable them to resist gangrene in the throat, most powerful tonics and stimulants. No tonic remedy fulfilled these indications better than the Peruvian bark. It entered into our prescriptions both as a general tonic, and a local antiseptic. It followed as a prescription immediately after the cleansing of the stomach by an emetic, and was continued daily throughout the disease. It was given in drachm doses to adults, in substance, once every 2 or 3 hours, in any pleasant drink; and to children, in less doses, but in like manner. It commonly set well on the stomach, and had no other effect on the bowels, than that of opening them gently, and if it went further, an astringent was added. In its administration no regard was paid to the state of the tongue, for the condition of the throat rendered it foul at any rate; nor to the degree of fever present, for so far from increasing heat or the frequency of pulse, it lessened both; thus displaying its febrifuge powers as in Typhus; nor was the stomach sickened or oppressed by it. The Pale bark is the species I used; but the power of curing this disease, is not given to it exclusively.

Wine, which has been considered as a rival of the Bark,

in this and its kindred dieases, I have not tried. The stimulants resorted to in this disease, were formed into a compound, and called the pepper medicine. Great praise has been bestowed on this remedy by the West India physicians, with whom it originated, and not unjustly. Prepared and administered as directed by them, and advised by Dr. Thomas, it does, so far as I could judge, act powerfully upon the fauces, cleansing the ulcers, promoting a discharge of mucous from the inflamed mucous membrane, thereby abating its inflammation, and at the same time acting on the whole system as a stimulus. To Dr. Thomas' work, on the Practice of Physic, reference is made for the prescription, and manner of using it. It was used by me after that mode, in all the cases which came under my care, and without any untoward symptoms arising from it.

Gargles and external applications constitute the local remedies. The first appear to act by washing away foul discharges, disposing the ulcers to cast off their sloughs, and promoting mucous secretions from the fauces, thereby abating inflammation. The second act by a resolvent, discutient or revulsive power, and are calculated to lessen swelling, ease pain, &c.

Many kinds of gargles have been recommended, but they are either of a stimulant, astringent or tonic nature, and may be used separately or combined. That which I have used, was a compound of bark, borax and tincture of myrrh, in the proportion of a drachm of each of the first, to two drachms of the latter, in four ounces of water, and of the solution a sufficiency to gargle the throat five or six times a day, was directed. To cleanse the ulcers better, a mop dipped in some of the gargles was used two or three times a day. To render sloughing more rapid, the ulcers were touched, twice a day, with a mixture of honey and burnt alum. Various external applications have been made, such as blisters, liniments, poultices, fomentations, &c. Blisters did injury in all the cases in which they were tried, and caused more suffering to the patients than the disease in the

throat itself. In one case, it was with difficulty that gangrene was prevented from attacking the blistered surface; and in all they were obstinate in healing, and very irritable. Liniments in general did no better. In some few cases, the vol. liniment of the dispensatories, was of service in removing the swelling and pain in the tonsilor.—Poultices were seldom used.

Of all the external applications, fomentations answered best. Of these, a spiritous solution of muriate of soda, made by saturating ardent spirits with common salt, was best. This is an admirable stimulant, acting on the skin so as to produce a redness and pustular eruption in a day or two, and upon the deeper parts, giving vigor to the languid vessels, and easing pain; thus disgorging the vessels and discussing tumefaction in the course of twenty four hours, in many cases, and doing evident good in all. I kept a piece of flannel, constantly wet with this solution, in a hot state, to the throat.

Paris, Kentucky, December 1, 1827.

SELECTED ESSAYS AND CASES.

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Art. IV.—*Notices of some Anomalous Cases of Dropsy.*

By N. Chapman, M. D.

[From the Philadelphia Journal of Medical Sciences.]

It is a common remark of writers, that in the commencement, as well as throughout the subsequent stages of dropsy, particularly ascites, there is sometimes almost as much distress from flatulence, as by the accumulation of the fluid. For this and several other reasons, I once thought it not unlikely, that occasionally the blood vessels may, instead of a serous effusion, secrete a gas, which, by some process not understood, might be converted into a fluid state. That the blood vessels are capable, and do exercise such an office, has been shown by Mr. Hunter, and is rendered probable by a variety of facts. Dropsy, I have seen in several instances to follow flatulent colic—and I had, some years ago, under my care, in consultation with the late Dr. Wistar, the case of a boy, which strongly supports the hypothesis.

Having become heated and fatigued by skaiting, he laid on the ice, and after a time, was seized with a colic, attended by a distention of the abdomen, amounting to tympanites. By carminatives, opiates, and external warmth, he was speedily relieved of pain, but on our next visit, a few hours afterwards, we were astonished to find that he laboured under ascites, with œdema of the lower extremities, which proved exceedingly tedious, though he finally recovered.

During the summer of 1825, I had under my care a lady from the country, who, after eating watermelon and some other fruit, was attacked, according to her report, with violent colic, followed immediately by tympanitic distention. On examination I found she had confirmed ascites with œdematous swellings of her feet and ankles, from which she was relieved by copious diuresis and watery discharges from the bowels.

It seems, moreover, that dropsy may be induced by repelled perspiration, or in other words, by an inverted action of the exhalents. Cases to this purport have also come under my notice. Not many years ago, I attended a gentleman, with Dr. Physick, who, returning from a tiresome and dusty ride, went into a warm bath. The

water was so uncomfortably hot, that he could scarcely bear it. He however, continued in it for half an hour, and on coming out felt chilly and soon experienced the distention of ascites, and finally died of universal dropsy.

Nearly about the same time I was called to another gentleman in consultation with Dr. Physick also, with general dropsy, who traced its commencement directly to his having imprudently plunged into a cold bath, whilst heated and sweating from exercise. Each of these individuals was in the meridian of life, of robust constitution, and previously in the enjoyment of perfect health.

These are anomalous cases, apparently exceptions to the doctrine of the universal and inseparable connection of dropsy with inflammation. But, perhaps, they may be reconciled to it. In the instances, for example, which were preceded by colic and tympanitic distention, it is not altogether unreasonable to suppose that the irritation was extended to the peritoneum, exciting phlogosis—and in relation to the others, succeeding to the use of the hot and cold bath, it is more manifest that there was a metastassis of the irritative impression made on the dermoid, to the serous tissue, and the effusion resulted accordingly. The external and internal exhalents act pretty much reversely, whatever is gained by the one is lost by the other, and very often there is an entire vicarious assumption of office respectively. The functions of the skin being suspended, what is more usual than to see some inward surface or organ increasing its efforts to compensate the loss. Generally, we have under these circumstances, watery diarrhœa, or an augmented urinary discharge. But imagine, that instead of the bowels or the kidneys being thus affected, the peritoneum were excited, should we not be presented with hydropic results?

The doctrine, as now received, presumes that ascites is invariably the effect of pre-existing peritonitis, and especially of the sub-acute or chronic state of it, all the remote causes of the disease uniting to produce such an effect. Cases, however, of ascites, do sometimes follow the acute species of peritonitis, though always I believe, when it is originally weak, or much reduced and delicately diffused. The extravasation of coagulable lymph, or the secretion of pus is uniformly the product of it under opposite circumstances.

ART. V.—*Remarks on the Spontaneous Suppression of Hemorrhage in cases of Divided and Wounded Arteries, with Comments on the Physiology and Pathology of the Circulating System.* By NATHAN SMITH, M.D. *Professor of Surgery, &c. in Yale College.*

[From the Philadelphia Monthly Journal of Medicine and Surgery.]

IN confirmation of a position with which I concluded the first section of the article in No. 5, viz. that in cases of ossified arteries, the pain produced by the application of heat to the extremity is owing to the capillaries being too much excited for the quantity of blood which they receive, I would observe, that in other similar cases in which gangrene has commenced, I have observed the pain to be increased by placing the limb on a level with the body in the bed, and to be rendered more tolerable by placing it in a depending position. I used to remonstrate with my patients in regard to this particular, and earnestly charged them to keep the limb elevated. They, however, persisted in asserting that the pain was intolerable when the limb was raised to a level with the body in bed, and greatly relieved when depressed.

This interesting phenomena is accounted for by the fact, that, in such cases, the *vis a tergo* of the blood in the arteries is not sufficient to carry it through those vessels which are themselves inactive and unconnected with the capillaries. Therefore as the blood is with difficulty, and in insufficient quantity, furnished by the arteries to the capillaries, these latter are compelled to increase their action in proportion to the defect of action in the arteries.

That there exists in the capillaries such a power of thus increasing their action, as peculiar circumstances may require, the following facts will prove:—I once had occasion to tie the external iliac artery for ingeuinal aneurism. The instant the artery was tied the patient experienced a most severe pain through the limb, and before we had applied our dressings the limb was sensibly colder than the other.—At the end of three hours, however, it became obvious that the diseased limb was sensibly warmer than the other, and at the end of six hours both limbs were of the same temperature.

My conjecture was that in the first instance the cold was produced by sudden diminution in the quantity of blood sent to the capillaries by the arteries, causing a suspension of their action, and that the heat

which followed was the result of the increased action of the capillaries to attract blood to themselves, a phenomenon analogous to many other operations which take place in the animal economy, and which are usually ascribed to the recuperative powers of nature.

It may seem paradoxical that the capillary vessels should possess the power of soliciting forward blood from the heart, which has been heretofore regarded by most as the only organ *actively* concerned in the circulation of the blood, and even at the present time has chief importance attributed to it. A recent writer of reputation states, as I observe, that the heart, in his opinion, is adequate to the complete circulation of the blood through the arteries and veins. We have, however, many unequivocal facts which prove the contrary.

In every case of local inflammation, before the action of the heart and great arteries is in the least changed, there is an accumulation of blood in the capillaries of the part inflamed. This could not, indeed, take place, if the blood was not furnished to them by the heart and arteries; but, in such cases the action of the heart is not directed to the inflamed part more than it is to every other part, nor more to that particular part than it was before the inflammation took place. It follows, therefore, that the change in the part diseased, producing an increased quantity of blood and an increased evolution of heat, must depend on some change in the action of the vessels of the part, and not at all on the *vis a tergo* of the blood impelled by the heart.

There are other causes which render this power of the capillaries still less equivocal. In certain morbid vascular structures the blood vessels of which they are chiefly composed, are observed to have the power of drawing blood from the surrounding parts and discharging it from the system.

A lady had a small vascular tumour on her neck, of the size of a common strawberry. It was attached to the skin by a neck less than half the diameter of the tumour, and was in a degree pendulous.—This tumour often bled and it was observed that emotions of the mind frequently caused it to effuse blood. Sometimes the blood flowed in a small stream, but it generally dropped in large drops, which followed each other in quick succession. When the patient, after my being called, was informed of my arrival, the agitation which she experienced, immediately caused the tumour to bleed, and on my examining it I found it still bleeding freely.

I immediately cut off the tumour level with the sound skin, and the bleeding at once ceased; not three drops of blood following the operation. In this case the vascular tumour seemed to operate like a pump, attracting the blood from surrounding parts and discharging it from the system. This is by no means a new or solitary case; it has long been known that, in cases of fungous tumours which bleed, the only effectual and certain method of restraining the hemorrhage is to cut of the whole tumour down to the sound parts.

Another example of the same nature, and which serves to illustrate the principle under consideration, is found in those vascular tumours often met with on children, called *nævi materni*. Those tumours are composed chiefly of blood vessels of a very tortuous form; they are always of a higher temperature than the adjacent sound parts, and if wounded bleed furiously; the blood is thrown out from the divided vessels with much greater force than from divided arteries in sound parts of the same volume, as I have had several opportunities of witnessing. For this reason we have been advised by surgeons, in case we remove such tumours with the knife, to make the incision in the sound parts, beyond the limits of the disease, that we may thus avoid fatal hemorrhage. If this be done, the hemorrhage is as easily restrained as it is in similar wounds on any other part of the body.

These phenomena can not be accounted for upon the principle of mere debility or relaxation of the arteries and veins of the part: their thus receiving a larger quantity of blood but proves the existence of a peculiar action which enables this congeries of vessels to attract the blood from the surrounding vessels.

The fact which I now proceed to state is familiar to most practitioners, and especially to accoucheurs. In natural and healthy labour, when the child is born alive, if we examine the umbilical cord, immediately after the birth, and while the placenta remains in the uterus, we find the two umbilical arteries beating strongly. If we then wait a few minutes and examine that part of the cord next the placenta we find them beating rather faintly, and by waiting still longer we perceive that the pulsation has ceased in that part of the cord farthest removed from the child. Gradually the pulsation ceases along the cord from its placental extremity, until it is no longer felt even at the umbilicus; and if it be then divided there will occur no effusion of blood.

Now the question to be solved is, why, after the birth of the child, does the blood cease to pass through the umbilical arteries, in which

a few minutes before, it circulated with so much force. These arteries are branches of the hypogastric, and there appears to be no more impediment to the entrance of the blood into them than there existed before the birth of the child. To me it does not appear attributable to the change of temperature which the part experiences, for the circulation in the arteries ceases while the placenta remains in the uterus of the mother; and as for the cord, it is not more exposed to cold than the legs of the child: and we therefore can see no cause why the impression of cold should not stop the circulation in the latter as well as in the former.

The fact cannot be accounted for by a hemorrhage from the extremities of the arteries; for the blood vessels of the child have no communication with those of the mother. When the birth is perfectly natural, and the placenta separated entire without laceration, there is never any blood from the child discharged by the placenta.

I am not aware that in this cord there exists any mechanical obstruction to the circulation of the blood through the cord, and yet the result which I have mentioned is constant and uniform. Here, as there is no division there can be no retraction of the arteries, and no coagulum formed which can directly or by lateral pressure obstruct the artery; and yet the blood ceases to circulate as promptly as when effected apparently by these causes.

To explain this phenomenon we must have recourse to a law of the animal economy which I have not seen noticed by any medical author; and yet it seems to be a general principle, and certain in its operation. I allude to this,—that when any function is cut off from the system or totally destroyed or superseded, all that action which went to support that function in a longer or shorter time entirely ceases. The placenta during gestation performs the office of lungs for the fœtus, and after the birth, when respiration is established, this function of the placenta is not wanted and of course ceases; and the action of the arteries ceases because it would not subserve the functions of the economy, but rather would be injurious. Instead, therefore, of referring this change to mechanical causes, it must be referred to a law of the animal economy: which is the ultimatum of many of our researches, and seems to be pursuing the subject as far as it can be traced.

ORIGINAL REVIEW.

ART. VI.—*Pathological Anatomy. The last course of* XAVIER BICHAT; *from an autographic manuscript of* P. A. BECLARD; *with an account of the life and labours of* BICHAT, *by* F. G. BOISSEAU, *Member of the Royal Academy of Medicine of Paris and Madrid, of the Medical Society of Emulation, &c.*

[Translated from the French by JOSEPH TOGNO, student of Medicine, *Philadelphia.*]

John Grigg, No. 9, North Front street, 1827.

THE only merit, that can be claimed for Bichat, in the following synopsis of pathology, is in reference to his peculiar and happy method of arranging organs and systems, according to tissues, their healthy functions, and specific morbid acceptances.

The authenticity of the work before us, was so far doubtful as to make it necessary for the publisher to present circumstantial testimony, of its being taken, by Beclard, from the lectures of Bichat, recorded and preserved by a confidential friend of Beclard, and given to the profession, from his autographic manuscript.

Boisseau, the biographer of Bichat, states, that "the reader will peruse in the present work many ideas which now have become a kind of public property, and the originality of which is given to others—not to Bichat; and he must bear in mind, that this manuscript was written by Beclard, in 1805."

The work consists of 228, 8vo pages, and as the reader will observe, contains the outlines, or first sketches, of a course of lectures on pathological anatomy; which, had the author lived but a few years more, would no doubt, have been perfected and finished in a stile of merit, equal to his *General anatomy*," or "*Treatise on the membranes.*"

His life was short, but eventful; a brief account of which, together with his labours, introduce the book before us, and although his biography has been published and republished, we will indulge for a moment in tracing the bright lines of his professional character, compiled from Boisseau.

Bichat was first the pupil of Mark Anthony Petit; but moving to Paris, he became the disciple of Desault, where he received the interests, affections and patronage, of an amiable and honorable preceptor; one who was above envy, or detraction, and whose noble soul, could never stoop to blast the rising fame of his pupil, because he feared, his rapid strides to respectability and eminence, would one day eclipse, or equal, his own reputation.

After the death of his master, he published the last volume of the *Journal de Chirurgie*, and then retired two years to study. After which, he delivered a course of lectures on Anatomy, Physiology, the diseases of the bones, and operative surgery. He next published the surgical works of Desault, and founded *la societe d'emulation*, where he first promulgated his original views on the different systems of the membranes.

"In the beginning of the nineteenth century, he published his treatise on the Membranes, the Inquiries on Life and Death, and his General Anatomy, and lastly, delivered [*these*] lectures on Pathological Anatomy, when, at the age of thirty, he, "by watchings, intellectual labour, and constant attendance in the dissecting room, died."

On classification, according to tissues and analogies, rested most of Bichat's fame.

"Before his time, the organs of the body were studied seperately, in the order of the functions, or of their situations; he classified the tissues, in his vast mind, according to their analogies."

Pathological investigations should be founded in Anatomy and Physiology. The morbid must be associated with the healthy condition of the organ, under investigation. The unhealthy state of a part, cannot be understood, unless the anatomy, and natural, healthy functions, be first investigated.

By a careful analysis of the mechanism of tissues, and the invariable correspondence of motions, arbitrarily resulting from the same organization, whether existing as a whole, or uniting with other dissimilar tissues, in the formation of a viscus, and associating in their actions to the production of a compound function, differing from either, but depending on the whole,

for a perfect, healthy result, we shall be enabled clearly to understand organic, and functional deteriorations of any and every part of the body, though exhibited through the most obscure and deceptive appearances.

In this way the science of medicine should be studied. First—the anatomy of the entire body, in connexion. Secondly—the anatomy of individual organs, with their contiguous associations. Thirdly—its specific diseases, and morbid sympathies; in short, its pathological character. Fifthly—its therapeutic relations; and lastly, its pharmachochymia.

If taught by this system, the young physician can prescribe with safety to his first patient. He ascertains the organ or part affected; he recollects its anatomy, then its physiology, next its pathological condition; in course, the means of cure: this suggests the remedies; and the next presented is, the chemico-pharmaceutical manipulations of the recuperative agents.

In pathology, there are facts existing, arbitrarily, for which we can assign no reason, only, that they do, in truth, live. Who can tell us why adhesions in the mucous membrane, sequent to inflammation, never take place, or that it is common in the serous. Why does inflammation of the capsules of the joints, so seldom terminate in suppuration, when it is so common in the cellular membrane? Again we would ask the cause of serous effusions, dropsies, being confined to the serous tissues? Many other similar truisms might be presented; such as the liability, of inflammation of the synovial membrane to become chronic, and produce a constitutional, febrile irritation; sometimes terminating in adhesions, but oftener in granulations, which causes anchylosis. Also, that inflammation of the serous covering of an organ, or tissue, is acutely painful, whilst that of the parenchymæ, of the same viscus, or individual tissue, is manifested by an obtuse deep-seated pain. Periostosis, is more active than exostosis, and terminates sooner, and may resolve; whilst exostosis seldom or never ends by resolution.

Fibrous membranes, naturally insensible, become extremely painful when inflamed. Cartilages are but little susceptible of inflammation, though often absorbed entirely.

Without a possession of these truths, and many others, simi-

lar, we are as liable to be wrong and dangerous, as right and safe, in our opinions and prescriptions.

A bond of union exists throughout the whole body, continually secured, by, what has been called sympathy, intelligences, mutual dependences, &c., which exhibits itself, by a mutual reciprocity of action, between the different, proximate elements of the system. Sometimes it is direct, with parts contiguous; again, with organs remote from each other. It is often indirect, acting through, and involving one or more, apparently, dissimilar tissues. Many are immutably fixed in the natural organization of the whole animal; whilst others are instituted by disease. A part, of either the healthy, or diseased sympathies are, under suitable circumstances, always present, and may be depended upon, whilst others are variable, and influenced by causes, fluctuating and uncertain.

Morbid Anatomy, has, also, a direct reference to the kind and quality of foreign agents, qualified by any comparison, to change, or alter the healthy, natural condition of any organ, or texture of the animal body. Each tissue and part, have a specific aptness to receive, and admit, or refuse and repel, certain morbid or remedial actors. Thus, one kind of cathartic will act on the stomach; another on the duodenum; a third, on the jegunum and illium; a fourth, upon the colon; a fifth, the rectum. This, it has been said, is in reference to the solubility of the cathartic used; but, most likely, the truth lies in the fitness, or susceptibility of those individual parts, to be influenced by different medicine. Secale cornutum, will act upon the impregnated uterus, within ten minutes; therefore, not by contact, but by an unknown law, which fittens one quality of matter, with reference to the sensibility of certain parts, or organs of the animal.

This fact is clearly proven, by the different effects of Ol. olivera, when applied to different parts; a drop put into the eye, creates insupportable pain, but in the mouth it is mild and bland. Hot tea, *mush*, or potatoe, will burn the mouth and pharynx to a blister, and in an instant, if swallowed, rest upon the same membrane of the stomach with impunity.

These effects are known, from causes, equally well under-

stood; and if the quality and peculiar adaptation of one morbid agent, to an individual animal organ, could be as well understood, the great obscurity, as to the cause of diseases, would soon dissipate. In the first instance we have the cause, and can see and handle it, and know what it is, to an ocular certainty, and also know, what part of the system it will act on, when administered. As to the second, we can only see the effect without being able to discover the cause. Chemistry has not yet detected, and exhibited to us, labeled, the ingredient, that will cause hooping-cough, measles, or scarlatina.

From the above few facts, the importance of the study, of pathologic anatomy, is obvious. We must know, and retain these arbitrary, and inexplicable truths.

But it is time we turned to our author, and with no apology for this lengthy introduction, we proceed to the analysis of the work, which is nothing more than an epitome of general pathology, most of which, has long been known to the profession, an objection anticipated by the biographer of Bichat, and explained upon the first page.

The book is divided into *chapters*, which are subdivided into *articles*, the whole prefaced, by a "*preliminary discourse*," urging the necessity of post-mortem examination. The two following extracts will present his views.

"It is well known into how many errors we have fallen, so long as we had confined ourselves to the simple observation of symptoms. Let us take for example consumption. Is has been considered as an *essential malady*, before we had recourse to post-mortem examination; since, it has been shown that marasmus was only a consecutive symptomatic malady of the affection of an organ. Jaundice has been for a long time considered by practitioners as an *essential malady*; post-mortem examination has also proved that this affection, thought primitive, was in reality only consecutive to diverse alterations of the liver, of which it is always the symptom. The same has happened with respect to dropsies, which although for a long time considered as essential affections, have never been other than the result of some organic disease. It is, then, ignorance of organic affections, resulting from a total neglect of post-mortem examination, which is the cause that has misled the ancient practitioners on most diseases; thus, *Cullen* and *Sauvages* have erred in their classifications." p. 14.

"We may distinguish two classes of physicians; those who have

only observed, and those who to observation have added post-mortem examination. The former are very numerous; the latter are confined to a very small number, and are only to be met with in the last century. Hippocrates, Celsus, Aretæus, and all the Greek authors, have been satisfied with observing the symptoms; and consequently most of their diseases are badly described." p. 15.

The first chapter is on the "*consideration of post-mortem examinations.*" It exhibits the different appearances presented in the cadaver, resulting from the kind of disease which induced death. We will only present the following.

"We may distinguish three kinds of death: sudden death; that which happens in an acute malady; and, finally, that which follows a chronic disease.

In sudden death, there is hardly any alteration present, either in the internal or external organs; in the greatest number of cases the disease is concentrated either in the brain, heart, or lungs: such as asphyxia, syncope, poisoning, &c.

The muscles are red, with the texture as firm as in a natural state; the skin is hard to the touch, the eyes prominent; the mucous surfaces, and often, even the cheeks retain a blush; the expression of the physiognomy remains; in a word, the appearance of all the organs differs essentially from what they are in chronic diseases.

The second kind of death begins to have some influence in altering the aspect of the cadaver. Every acute disease always alters more or less perceptibly the parts; there are even some, the effects of which, on the corpse, are similar to those in the most protracted diseases; all the solids are altered, almost decomposed; as is the case in pestilential fever, &c.

When acute diseases are continued for a long time, then the fat is absorbed, serosity abounds, and the phenomena become, soon after, like those of chronic diseases. Nevertheless, we must observe that the organs most altered, are those in which nutrition is most active in a healthy state; and on the contrary, those which enjoy only an obscure vitality, are the least sensibly injured. Such are the tendons and oponeuroses.

Lastly, the third kind of death, produced by chronic diseases, totally changes the state of the organs in the subject. Their texture is ordinarily found very much altered, especially when death has been protracted; they have a flaccidity foreign to the usual state; the alterations affect also the tendons and oponeuroses, which become yellow."pp. 16—17.

The second chapter prescribes the "*order to be followed in*

pathological anatomy." In this chapter we have specimens given us, which are to be observed in the investigation of every part of the subject.

"Every system has an order of functions which is peculiar to itself, whatsoever be its situation. Such is the phlegmon or inflammation of the cellular tissue: whether it be in the extremities, or in the trunk of the body, it is always of the same nature; the pus which it produces is always the same. Whatever may be the place in which the serous membranes are found, their diseases are analogous; they only are susceptible of adhesion. The cutaneous system is the exclusive seat of certain morbid affections, such as tetter, syphilitic eruptions, and inflammatory pustules. This was so obvious in the eyes of practitioners, that they had formed a particular class of cutaneous diseases. To conclude, from all we have said, it is easy to see, that it is all important to examine the diseases of the systems singly."

"Let us take for example the lungs. These organs are composed of the pleura, of the parenchymatous structure of the lungs, and of the internal membrane. In pleurisy, the pleura only is inflamed, the pulmonary tissue and the mucous membrane remain untouched. In peripneumonia, it is, on the contrary, the parenchymatous structure of the lungs, whilst its two membranes are healthy. In the same manner catarrhal cough is exclusively confined to the mucous membrane, whilst the pulmonary tissue and the serous membrane are sound and healthy. We may reason in the same manner in relation to all the other organs." pp. 19—20.

The following is worthy of remark.

"All the chronic diseases do not propogate themselves in an equal degree. Cancer is very susceptible of it, whilst the arterial ossification never spreads." p. 22.

Chapter third, treats "*of the alteration of the fluids*, and considers their appearances illusory, but the more requiring attention. They are divided into three kinds: the circulating, the secreted, and the exhaled. First the circulating, from which we extract the following:—

"The blood undergoes singular and numerous variations in diseases; they can only be known by the examination of the corpse, or of the blood after venesection. Indeed the quantity of blood is very variable in different bodies. In general it is very abundant in persons dead of asphyxia, and in every kind of death which terminates life

instantaneously, such as apoplexy, &c.; in other affections post mortem examination presents hardly any; such is the case in chronic diseases, which waste the vital forces for a long time, as phthisis and all those which induce marasmus or dropsy; hence the pulse, in such cases, is very small towards the end, and the arteries contract on themselves." p. 23.

Farther he remarks:—

"It is particularly in its consistency that blood differs. Certain diseases change it very much; scurvy, putrid fever, and asphyxia, render it always very fluid. Other affections concrete it. The polypus is nothing more than a bloody concretion, formed in the large vessels or in the heart." p. 23.

"Respecting the chyle, observation ascertains nothing; the same thing is the case with regard to the lymph, of the alteration of which so much has been said: even in our days affections entirely different are mistaken for these diseases. What is called lymphatic engorgement of the articulations is only a disease of the cartileges." p. 25.

A particular consideration of the exhaled and secreted fluids, is referred to the articles, which treats of their respective organs; so are the fluids formed in a pathological state.

Chapter fourth is exclusively devoted to inflammation. The article is made up with an abstract of the orthodox theories of inflammation, arranged by our author's masterly scale, according to the relation of parts and tissues. In his conclusions, he is influenced by the dogmas of the French schools; cautioning his readers against the interruption of the first stages of intermitting fever, of repelling inflammation, small pox, or simple catarrhs. He considers the changeable disposition of rheumatic inflammation, as governed by the different systems in which it is situated. We will extract the following as an interesting item on suppuration.

"Two principal causes singularly modify suppuration; these are the diverse complications, and the nature of the affected system. Certain systems, as we have already remarked, are very much inclined to suppuration, and in these, inflammation makes very rapid progress; others, on the contrary, seem very little susceptible of it.

Even the mode of suppuration differs in each system; in the mucous it is only an increased secretion of the glands subjacent to the membrane. In the serous, on the contrary, it is only an extraordinary

exhalation, sometimes mixed with flakes, without our ever perceiving any erosion on the surface. As to the pulmonary or cellular system, it is very difficult by mere inspection to determine how suppuration goes on. Almost always the pus is infiltrated in the lungs. In the skin, the puss gathers in small abscesses; in the cellular tissue, it forms a considerable sac: the serous tissue never forms abscesses in its cavities. Thus we see, that the nature of suppuration differs according to the particular system. It is not, therefore, a function, as nutrition, which every where takes place in the same manner.

The nature of the pus varies singularly, although we confound all its different kinds with that which is generally produced in the cellular tissue; but in no system does it appear the same. At times it is a limpid serosity, at others, is mixed with flakes; sometimes it is a false membrane; finally, at others, it presents the consistence of pap (*bouillie*). Hence comes the erroneous idea we form of sanies. The pus coming from a certain system, might be considered a true sanies, whilst it would not be thought so, if it proceeded from another.

The symptoms which are produced by the existence of this fluid are also different. In the cellular tissue, it is manifested by a heaviness and peculiar tension; upon the mucous surfaces it produces an irritation which urges us to remove it, as in coryza. It never remains with impunity in the bones; it causes in them a very peculiar pain and injuries, when it is not evacuated. There are some parts where it may remain without producing any great inconvenience. After pleurisy, a person may retain pus in his thorax, for a long time, without experiencing a very painful feeling." pp. 33—34.

The following instructive remarks upon a few of the peculiar terminations of inflammation, merit observation.

"There are material differences between chronic and acute inflammation. The chronic one never becomes complicated, because its complications being acute can not last as long as it. The termination of the chronic inflammations varies also according to the system; in the serous it ends almost always in dropsy; in the lungs, in phthisis pulmonalis; in the mucous membranes, by dysentery. It is often the case that the patient dies.

Inflammation may also terminate in other maladies, such as steatoma, &c. But we have not a sufficient number of observations on this subject, to justify us in speaking of it. In conclusion, the last termination is gangrene. It also presents differences according to the systems affected. It is never to be met with in cartilages, nerves, nor bones; other systems are more prone to it, as the cellular tissue, the mucous and serous membranes, and the skin. This termination may be brought about by two different causes; 1st, by its peculiar nature; 2d, by excess of inflammation." p. 35.

This chapter ends by saying:

"Sometimes, when life is too active in the part, gangrene is also a consequence. This accident is more to be feared in the country than in cities. Besides, we must carefully distinguish putrefaction from gangrene, to which antiseptics are not opposed." p. 36.

The next chapter opens, and is taken up, with an expose of the *diseases of the serous system:* which is considered, as composed of a certain number of membranes, covering the exterior of several organs, forming sacks without openings, and presenting two surfaces, one smooth and polished; the other adhering to the organ it envelopes, and the contiguous parts: in a healthy condition, insensible, but when inflamed sensation exists in the highest degree. He considers its diseases, of two kinds, *essential* and *symptomatic*. The first; inflammations, and presented as follows:

"Few systems, if we except the mucous and the cellular, are oftener inflamed than the serous; but all the membranes which compose this system are not equally susceptible of it; the following is their order in this respect: 1st. the pleura, 2d. the peritoneum, 3d. the pericardium, 4th. the tunica vaginalis, and lastly, the least frequent of all, the arachnoid.

Here, the causes of inflammation are extremely varied: in general, we shall never pay any attention to remote causes; among the proximate ones is particularly the suppression of transpiration; this is especially the case with regard to the pleura and peritoneum. These causes act, not on the affected membrane, but on the neighboring organs. When the disease is developed, these are the characters which distinguish it: at first it is accompanied with all the general phenomena; fever, chills, sweating; in general, it is singularly variable. A very sudden attack is manifested by an excessive pain of the part, as we see in pleurisy. In no system is the pain more keen; the stages succeed each other with an astonishing rapidity; in three or four days the disease is determined; moreover, the concomitant fever, which is slight in the affections of other parts, is here very intense; and the danger is always more manifest. This inflammation influences also the condition of the organs which it covers, besides, these symptoms vary singularly." pp. 37—38.

The conclusion of this article is highly interesting, and

merits attention: it is instructive upon the termination of inflammation of this tissue.

"There adhesions are of two kinds: some have for means of union a species of albuminous matter, in the form of a false membrane; the adhesions, properly so called, are those in which the two membranes seem to blend themselves at their surfaces.

All serous membranes are not equally susceptible of this adhesion. The pleura presents this phenomenon in two thirds of the cadavers examined in the dissecting rooms. Next in order comes the peritoneum, which sometimes adheres to the diaphragm and to the liver, seldom to the intestines; then follows successively, the pericardium, the tunica vaginalis, and the arachnoid.

We see by this gradation, that those which are most susceptible of inflammation present, most commonly, adhesions. These are of four kinds: in the first, the two parts are so very intimately united that we cannot distinguish them. The pericardium having been found in this state, has caused doubts to arise about its existence. In the second species, the membranes are united in a more loose manner; in the third, there are a multitude of small fibrous prolongations, which extend from one surface to the other. In the fourth, there are also bands, but larger, flat, and disposed in such a manner, that one would think them natural. Can we ascertain during life these kinds of adhesions? Writers have described as a sign the constancy of the pain; but this only indicates the remainder of inflammation, which lasts more or less time. Besides, this affection is oftentimes without danger.

Another mode of termination of the inflammation of the serous membranes is suppuration. Certain signs make it known. When the disease passes the sixth or eighth day, and the patient feels a local *weight*, we then presume that suppuration is formed. It is somewhat rare to find then in the serous membranes only a pure fluid exhaled: commonly it is mixed with an albuminous matter, which gives to it the aspect of a lactescent serosity; at other times floating flakes, more or less large, are met with; as in puerperal fever. Finally, sometimes, in children who have died from inflammation of the pleura, we find a matter absolutely analogous to pus. We find, moreover, but rather seldom, a kind of false membrane, produced by an albuminous matter more concrete than in a natural state. Lastly, the serous fluid degenerates so much, at times, that it assumes a bad colour and smell, as we see, sometimes succeeding inflammation of the lower abdomen. These diverse fluids may remain for more or less time upon their respective surfaces; sometimes we find those which have existed for more than six months. In the chronic inflammation of a serous membrane, ordinarily the subjacent organ is affected, whilst in

the acute it is never so. Further, the suppuration of these membranes is almost always fatal. Nevertheless, resolution sometimes takes place; but it is very seldom.

Gangrene is another termination still more rare than the others. The part in which it most frequently occurs, is the peritoneum; even on the examination of the cadavers, this membrane is merely red. Besides, the black colour does not always indicate gangrene."

pp. 38—39—40.

Chronic inflammation of this membrane, are next considered. Most of this article is very instructive; we extract the principal.

"Another termination of acute inflammation in the serous membranes, is chronic inflammation, called by the ancients induration. There are few tissues in which it is more common. It would be difficult to determine by the symptoms, the transition from the acute to the chronic, because their remission is not sufficiently appreciable. Such a termination protracts the disease to the fortieth or fiftieth day, sometimes even as long as three or four months. These epochs are very variable, and hence impossible to be determined precisely. The chronic inflammations of the serous membranes do not always succeed acute inflammation; they may be produced by a sudden and imprudent discussion, as well as by the affection of a neighboring organ. We have seen also one membrane communicate its affection to another, as the peritoneum to the pleura. However, these simultaneous affections are rare in this system, and because the parts which compose it, are seldom near each other. In the others, on the contrary, this phenomena is much more frequent. Often a catarrh of the nasal passages extends to all the mucous membranes, which by communication, cover the inside of the stomach, lungs, &c.

Moreover, the effects of these slow inflammations in the serous membranes, are, an obscure pain and analogous symptoms which often deceive us in regard to their true nature, because formerly physicians attended only to the dropsy they produced. There is always more or less derangement in the orgrns which they cover. A remarkable effect of these inflammations, is a real dropsy augmented by exhalation. When these dropsies have reached their last period, it is often difficult to perceive whence they proceed, and to decide whether they are produced by the affection of a neighboring organ, or by that of the membrane itself. We must have recourse to the preceding circumstances; for, symptomatic dropsy begins very differently from the idiopathic. Besides; as we have already observed almost always in that dropsy which depends on the organs, the cellular

tissue is infiltrated, whilst in the other, the serosity is confined to the cavity of the membrane. It is the same thing with respect to encysted dropsies.

The fluids produced by chronic inflammation vary singularly in their quantity, consistency and colour; they are seldom pure, almost always troubled, lactescent, &c. A phenomenon also very common to these affections, is hemorrage, in which the blood passes *at once* without any change into serous cavities: we then find them full of a reddish serosity, sometimes in so great a quantity, that the blood seems clear, always fluid, and without any coagulation. How can that be? It is evidently through the exhalants, for we perceive no erosion of the membrane." pp. 40—41.

The next article is upon *miliary eruptions*, which are often found upon the serous membrane, resembling the itch. They are particularly found upon the peritoneum, which causes it to look very red, and is invariably accompanied with dropsy.

Ossifications of this membrane are next noticed, and pronounced exceedingly rare, though sometimes occurring. They are often met with in healthy subjects, especially in the pericardium: no pathognomonic signs indicate it during life. The surface of the spleen, sometimes becomes cartilaginous.

Sympathetic affections of the serous membrane most commonly produces dropsies: there are two species.

" The one produced by the affection of the inveloped organ, as in hydro-sarcocele, ascites, &c. the other caused by a general affection or an organic malady which influences the whole system, as in phthisis pulmonalis, affections of the liver, matrix and spleen. We must not regard these terminations of organic diseases, as exclusively belonging to the serous membranes; they are general, and produced by the weakness of the whole economy." p. 44.

Diseases of the pleura are next introduced, offering as a probable cause for the frequent occurrence of pleurisy, the contact of this membrane with the lungs, and consequent exposure to the air. The pathagnomonic symptoms as follows:

" The symptoms of inflammation of the pleura itself are, a very acute stinging pain, which has its seat sometimes before, at others behind, but oftener on the side. This pain augments at every strong inspiration, which then produces cough. Often simple pressure made with the finger is painful." p. 45.

"The essential characters which distinguish peripneumonia from pleurisy are: in the former, the face has a constant redness, sometimes even a livid tint, which is a bad omen. In this affection strong inspiration is impossible, whilst in pleurisy it is only very painful. Exterior pressure, always very sensible in the latter, is scarcely perceived in the former. Percussion in peripneumonia gives an obscure sound; the character of the pain in pleurisy is more keen, and in peripneumonia more obtuse.

There are cases in which these two diseases complicate themselves: then, there result from them, mixed symptoms." p. 46.

The evidences of pus are the following:

"It is almost impossible, at first, to determine if the pleura contain pus. Writers have, nevertheless, given an infinity of signs in regard to this: first, it is the desire of the patient to lie on the affected side, whilst in the beginning it was precisely the contrary. Percussion is especially one of the best means; it ought to be tried on all sides. Another sign of which writers have not spoken, is the pressure of the abdomen: whilst pressing upon the epigastric region the patient experiences a sensation of suffocation. When these three symptoms are present, we may infer the existence of an effusion. There are other signs, such as starting in sleep; a livid complexion; the noise that the patient hears; and the dilatation of the affected side more than of the other; the fluctuation of a fluid, &c." p. 47.

Chronic inflammation of the pleura is best known: it is totally distinct from the lungs; cough is present in both cases, but of different characters.

"In chronic pleurisy, it is not so humid as in phthisis; the pain is not susceptible of shifting; there is no momentary heat in the hands and feet, no nocturnal perspiration as in the latter. There is a difficulty of lying on one side, almost always local dropsy, whilst in phthisis dropsy is general." p. 48.

The pleura is also subject to miliary eruption, and serous effusions, sympathetically produced by affections of the lungs and heart.

We pass over the consideration of the *diseases of the pericardium*, by noticing, that the symptoms of inflammation of this organ are very obscure, that it evidently terminates sometimes by resolution, but oftener by adhesions, which is evinced

by fainting, and irregularity of the pulse, which progressively increase, and cause death. Suppuration is another termination: the symptoms of which are similar to effusion, or hydropericardium.

Diseases of the peritoneum are extremely common, and in most cases extends over the whole surface, a common phenomenon to all the serous membranes. *Peritonitis*, or "inflammation of the *abdomen*, considered in general, has essentially its seat in the surface of the peritoneum." The following paragraph presents the interests of this article:

"Peritonitis is remarkable for the following characters, of which the first belongs to the peritoneum, the second to the gastric organs, and the last to the whole economy.

First, as to the peritoneum, when the disease has reached its maturity, the abdomen becomes very painful, particularly on pressing upon it; but this pain is very different from that of acute dysentary. In the latter, one does not feel that very distressing pain in the abdomen; there is an abundant and bloody mucous excretion, In peritonitis, the patient is always lying on his back: any other position is painful. Writers cite some examples of these diseases, in which the symptoms have not been appreciable, and in which, nevertheless, on dissection, all the evidences of inflammation have been found. The tension of the right and left hypocondria, is always more or less apparent; often distension (*meteorisme*) of the intestines, is a condition which points out a very great difference between peritonitis and dysentary; the subjacent cellular tissue is a little swollen."

"Peritonitis runs through its stages with rapidity. The termination is here as elsewhere, and resolution, which is always desirable, is succeeded by adhesions. These do not occur equally over every part; the small intestines are seldom the seat of them. They are common to the convexity of the liver, spleen, to the first curvature of the duodenum, to the arch of the colon, &c. However, these adhesions produce no disorder in the function. Sometimes fatal results have ensued, such as a fold of the intestines adhering to the mesentary, and becoming strangulated by a band." pp. 50—51.

Inflammation of the peritoneum is more subject to terminate in gangrene, than either of the other serous membranes, though, it is not common in this. "Suppuration, always occurs when the patient dies." "Peritonitis often terminates in chronic inflammation, which causes a remission of symptoms; vomiting is

frequent; the pain remits, leaving the patient sometimes at ease. In inflammations of this membrane, some degree of constipation exists; whilst in the mucous, a continued lax; dropsy is a uniform termination, and confined to the peritoneum. Chronic inflammation terminates in effusion, and constitutes general dropsy.

Puerperal fever is considered as an affection of the peritoneum. Nothing, but what is contained in modern treatises upon this disease, is advanced by our author. There is abdominal pain, sometimes towards the loins, at others, towards the epigastrium, and often in the whole extent of the peritoneum; remission of pain occasionally occurs. The cadaver exhibits a real affection of the peritoneum. Says our author.

"Termination by resolution is seldom observed. In well marked puerperal fevers, divers crises, by which it terminates, have been indicated. As to the nature of this disease every one now agrees in saying, that it is a local affection; the fever accompanying it, is only symptomatic. Sometimes the inflammation becomes chronic; then the symptoms of the puerperal fever cease, and every thing reassumes the character of peritonitis." p. 55.

The remarks on *symptomatic affections of the peritoneum* is interesting. We give it entire.

"Inflammation of the peritonæum, is often a symptom of other diseases, as in the greatest number of essential fevers, in which the abdomen is distended, becomes painful during two or three days, and then returns to its natural condition. Perhaps it is by a symptomatic eruption on the surface of the peritoneum, as happens sometimes to the skin: that which would induce us to believe so, are the frequent adhesions that we meet with in many cadavers.

"The most common symptomatic disease of the peritoneum is ascites; although physicians have regarded it, for a long time, as an essential malady. Sometimes, as we have already seen, this dropsy succeeds the chronic affection of the peritoneum; but, oftentimes, it is caused by the organic affection of an abdominal viscus; it is frequently produced by an affection of the liver, often also of the spleen, the matrix; seldom of the kidneys.

"It may be produced also by the lesion of a viscus, situated out of the abdomen. In these organic affections, dropsy is general, whilst

chronic peritonitis, is confined to the abdominal cavity, as we have already said.

"In the first case the liquid, being more or less copious, is limpid and transparent; several folds of the peritoneum disappear, and give to its cavity an extreme amplitude. The intestinal canal remains free and floating without any apparent adhesion, as in chronic peritonitis. This quantity of fluid acts differently on different parts. On the side of the thorax it presses the disphragm upwards, and hinders respiration. The skin anteriorly is uniformly tense as a balloon. The liver is either flattened or convex, according as the base of the thorax expands or contracts.

"Although this disease is not an essential one, nevertheless, there are certain cases in which it developes characters, which are proper to it. In an affection of the liver, as long as dropsy is not manifested, certain symptoms are not developed; but they are perceived as soon as it begins to appear. The condition of the secretions and exhalations are especially influenced; then the urine is in small quantity, and has the lateritous sediment, the skin is parched, and scaly, for want of insensible perspiration. Nutrition is badly performed, there results marasmus. The state of the pulse belongs always to the affected organ." pp. 56—57.

Diseases of the *vaginal tunic* present nothing of great importance. It is subject to inflammations, and adhesions, as is proven in operations for hydrocele, analogous to those of the pericardium, and heart. Hydrocele is produced by chronic inflammation of the tunic. It is also subject to miliary eruptions.

The arachnoid, is considered analogous to all other serous membranes, both as respects its healthy and morbid characters; the most common affection of which, is *phrensy*, or its inflammation. We present the following.

"Writers have distinguished two species of this disease: The one, which they have said to be superficial, and as it were erysipelatous; the other, more deep-seated, which has been called plegmonous. This division can not be admitted, for, of all the different parts, that the cranium contains, the arachnoid only can become inflamed; never have we found the substance of the brain inflamed; and as to the dura mater, by virtue of its fibrous structure, it is not susceptible of it. Indeed, all post-mortem examinations prove this, because the situation of the purulent serosity is always on the surface of the brain.

"The inflammation of the arachnoid, may be produced by two kinds

of causes: the first comprehends external lesions, the second embraces spontaneous affections."

"In this disease, as in all others of the same species, it begins with pain in the part; the intellectual faculties are confused, a common phenomenon in all cerebral affections; in this case it is only sympathetic. This derangement varies singularly. In all cases, the passions are exalted, rage succeeds, there is a continual agitation. Some authors have distinguished superficial inflammation from the deep-seated, by more or less proneness to sleep; but post-mortem examination has not justified this opinion. The termination of phrensy is generally fatal; death follows after the third or fourth day; a whitish serous fluid is found extravasated in the cavity of the arachnoid, on the surface of the brain. The ventricles seldom participate in the inflammation, although they are interested in the dropsy.

"Resolution is generally very rare; and where it does take place, there seldom results adhesions. We must not regard as such some prolongations, which form a sheath to all the vessels, which traverse the dura mater and brain.

"Although authors have spoken of gangrene, yet this termination never occurs.

"We have known some cases in which phrensy has degenerated into chronic inflammation; such was that of a child in whom hydrocephalus succeeded, after an acute inflammation of the arachnoid."

pp. 57—58. 59.

Hydrocephalus is next considered as an essential malady of the arachnoid. We give the author's words.

"This collection can occur in two different places; in the ventricles, or on the surface of the brain. The disease seems to arise from two causes, either from the affection of the internal surface of the membrane, or from a defect of the exhalants of this surface, and then no alteration is perceived. This proneness is common to the vaginal tunic.

"The organic alterations are different according to the seat of the collection; when it is in the lateral ventricles, then the cerebral substance is pressed from below upward, and in this case we almost always find the circumvolutions effaced.

"When the water is effused on the surface, the contrary takes place, and the brain is pressed from above downward. If the bones then separate in the womb, all the fluid runs out and the brain with it; this constitues the acephalus.

"In both of these cases, the vault of the cranium presents an extraordinary size, whilst its base is not at all dilated; the membranes which join the large flat bones, elongate and increase in proportion.

"The fluid in general is pellucid and transparent; it seldom penetrates into the vertebral column; the origin of the nerves shuts up the communication." p. 60.

Its sympathetic affections differ from its own species. It is only the seat of dropsy from disease of its contiguous organs.

Spina-bifida, or hydro-spinalis is considered an idiopathic affection of the arachnoid, covering the spinal marrow, and is analogous to hydrocephalus. He states, that the spinous apophyses are divided, and if a puncture is made, death is the consequence; which, according to some late reports, upon this disease, is not true. We are in possession of a well authenticated case, recently reported, where a radical cure was performed, by frequent small punctures into the sack, allowing at each time, a small quantity of water to escape, followed by a compress.

This article closes the consideration of diseases of serous membranes.

CHAPTER SIX, is devoted to the various diseases of the *mucous membrane*, and, though containing much, common to the profession, is, still, very interesting, and cannot be too often read and recollected. We will introduce its analysis by the following extract.

"The mucous system is composed of a series of membranes, which successively develope themselves over the different hollow organs of the economy. There are two principal ones; one which penetrating through the mouth, eyes and nose, covers the nasal passages, pharynx, bronchiæ, and all the intestinal canal; the other which, entering by the canal of the urethra and vigina, lines all the urinary and genital organs. These membranes differ from the serous in their general organization. They are divided into two surfaces: one, which lines the internal cavity of the organ and corresponds to itself, and is lubricated, in a natural state, by mucous; the other, external, is in contact generally with a fibrous surface: sometimes, however, there is an intervening cellular tissue. As to their texture, it has a great resemblance to that of the skin. We find at first a chorion, very thick in some places, and thin in some others; this chorion is covered with a papillary body, the seat probably of mucous sensibility. The epidermis is more or less apparent;

according to the different parts. It is very visible on the tongue, whilst it is not to be perceived in the intestines.

"The mucous membranes may be regarded as the internal integuments destined to protect the organs against the contact of foreign bodies. As to their vital properties, they vary in different parts. There is always organic sensibility, and insensible contractility.

"Re-pecting their alterations, we shall speak of them at first, in general, then in particular, as we have done in regard to the serous membranes.

"The mucous system, like the serous, is the seat of two species of affections. The first are primitive; the others are produced simultaneously with another affection." p. 61—62.

Inflammation of the mucous membrane is most common of all its maladies; which are, generally, influenced by changes of the atmosphere. Mucous phlegmasia, prevails frequently as an epedemic, which marks its essential difference from serous phlegmasia. The pain is not so intense, as in inflammation of the serous; and in disentery, the abdomen isn ever distendeded as in enteritis. It terminates in more or less secretions of mucous;—never in adhesion. The character of the mucous varies, according to the difference of membrane, and the stages of the disease. Our author says, "Catarrhal inflammation seldom terminates in gangrene, if we except some cases of angina;" and. that, "chronic inflammation, is a termination of a more frequent occurrence." False membranes are often formed upon them, which resemble the true mucous tunic.

Another essential affection of the mucous membrane is *hemorrhagæ*, which are divided into two classes, "namely, those from rupture, and those from exhalation. The former differs from the latter, by being influenced by the size of the wound, and independent of vital action. The latter "are immediately subject to its empire." Another species, namely, hemorrhoids of which little is known; they, "cannot be classified with either of these two species." "The nasal passages, bronchiæ, stomach, intestines, bladder," and, we will add, the mouth and skin, in purpura-hemorrhagica, the vagina, the ear, eye, urethra and ureters, are subject to hemorrhages, by exhalation. They are of two species, passive and active: active when accompa-

nied by increased vital action, and passive when there is debility, or breaking down of an organ or texture.

We now proceed to a consideration of the affections, common to individual parts of this membrane. The first is *aphthea*, of which there are two species; one consists of "small, round, and prominent ulcers, covered with a pellicle, somewhat thick and difficult to detach. The others "are small tumours, provided with excretory ducts, which is the reason why, we should regard them as small tumefied glands." p. 66.

The next is *fungi*.

"They have much analogy with hypersarcosis of ulcers and osteosarcoma. These fungi display themselves in the sinuses, mouth, nasal passages and matrix, when they are known under the name of polypi. They contain many capillaries in their structure, and when they are cut, blood pours out like a sheet of water. This character serves to distinguish them from cancer with which they have some analogy, in the latter the arteries assume a caliber two or three times larger than in their natural state; moreover it is accompanied with hardness and callosity, which are never to be met with in fungi."
pp. 66—67.

And again, same page.

"Another affection of the mucous membranes, consists in the alteration that they experience when they are exposed to the contact of the air, as is observed in the different displacements that they undergo, in prolapsus of the rectum, vagina, or artificial anus.

"Next follows corrugation of the mucous membranes, of which we have an example in gonorrhæa, affecting the membrane of the urethra: and in the œsophagus and stomach, after being poisoned by nitric acid." p. 67.

Diseases of the *conjunctiva*, presents nothing peculiar; we pass over it, and the consideration of the diseases of the *pituitary membrane*, which, consists of *coryza*, *ozæna*, *hemorrhagia*, and *polypi*, to the analysis of maladies of the *mucous membrane* of *the mouth*.

"The internal membrane of the mouth is almost never inflamed, and when that occurs, it is most commonly by continuity, as in angina tonsillaris, in which it may happen that the root of the tongue is interested. In general, this inflammation is the most rare of all those

which are remarked on the mucous membranes: and indeed it is never symptomatic." pp. 71—72.

To this we must, most positively, object, for nothing is more common, in this climate, than diseases of this membrane of the mouth; inflammation and their various terminations, are to be met with frequently. It often occurs primitively in the mouth, but oftener, perhaps, sympathetically with disorders of the digestive organs. We will consider this subject in another part of the review, and present the following.

"The effect of this foulness of the tongue is loss of taste, that we must be on our guard not to mistake for a want of appetite, which proceeds from the stomach. The sordes of the tongue vary in their colour, which is sometimes white, at others grey or black. These phenomena are often accompanied by vomiting, which is only the effect of the gastric irritation. The tongue may be, in certain maladies, the seat of a contrary phenomenon, and become dry and rough, as we see in inflammatory fevers. This character is remarkable in adynamic fevers, so that writers have given it as the first symptom. Sometimes it happens only after two or three days: then the tongue dries and becomes black. There are, however, adynamic fevers which do not present this phenomenon. When there exists a blackish crust, it is not found only on the tongue, but also extends to the gums, and even to the lips. Sometimes it is of a considerable thickness, and at others it is very light. When the tongue becomes humid, it is a sign that it is about to disappear. What can be the cause of this black crust? It seems that it is furnished by the glands, as it is certain that the dryness proceeds only from the want of mucous. This phenomenon of adynamic fevers happens at all ages, but especially with old persons." p. 73.

We will remark, here, that this loss of taste, is owing to the protection afforded by the foul crust, to the terminations of the gustatory nerve, in the papilla of the tongue, from atmospheric contact. By holding the breath, and opposing the passage of air over the surface of the tongue, the sense of taste is entirely suspended; which can be proven by suspending respiration, whilst taking the most bitter draughts, and immediately rinsing the mouth; when no taste will be perceived:—no small convenience to those, who have much medicine to take.

Diseases of the membrane of the Pharynx, are most common in inflammations; they may be idiopathic, or symptomatic. An-

gina is most common, of which there are two species. The first Angina tonsillaris, which is idiopathic; the other symptomatic, as in scarlatina. This membrane is also subject to veneral ulcers.

The consideration of the *diseases of the membrane of the larynx and bronchiæ*, are important and interesting. We present the entire article on croup.

"*Croup* is also a malady peculiar to the membrane of the larynx It differs from angina in its nature and progress. Commonly it attacks children. It is not generally epidemic. Its approach is announced by variable phenomena, as in all maladies. Sometimes this affection appears after a suppressed evacuation; soon after, pain of the larynx, difficulty in breathing, hoarse voice, aggravation of the symptoms, pungent heat, extreme agitation; the child puts its hand to the throat, the difficulty of breathing increases, the countenance becomes louring, soon after there is more or less drowsiness. The disease seldom terminates by resolution; ordinarily the sensation of suffocation goes on increasing, and finally the patient dies. It is astonishing how rapid the symptoms are, a circumstance which may be attributed to the tender age. Cadaverous autopsia shows flakes, as in phthisis pulmonalis. Besides the trachea and the Bronchiæ are a little red and swollen. As to general changes the same phenomena take place, as in those persons who die with asphyxia.

The right portion of the heart is engorged, as well as the brain; the visage is red, and we almost always find in the larynx a false membrane, which extends more or less into the trachea. The thickness of this is variable; as to its nature, it has never been fully examined. It is not the inflammation, but its effects which cause death, for the thickening of the membrane shuts up the whole passage and excludes the air. It is practiced to excite vomiting, in order to produce a general irritation which may encourage coughing. We must observe on this occasion that we seldom cough after vomiting, and it would be better to excite the cough in another manner.* However, laryngotomy is the most efficacious means. Sometimes the inflammation of the membrane of the larynx becomes chronic, in other cases, this condition is produced by other causes than an acute inflammation, as by venereal disease. Whatever may be the cause, these are the characters of the disease: at first, painful sensation in the larynx; small but continual sputa, of a grayish colour, that the patient says he discharges from the larynx; habitual cough; little alteration in the voice; at last the symptoms augment; they are singularly influenced by cold and heat. As to the precise seat of the disease, it would be very difficult to determine, nevertheless it seems to reside in the mucous membrane." pp. 76—77. W.

(*To be continued.*)

SELECTED INTELLIGENCE.

Alcoholic Extract of Nux Vomica in Rheumatic Paralysis, and in the incontinence of Urine in Children —"A young man, an amanuensis, was suddenly attacked with difficulty in moving the right arm, and presently also with pain. When M. MAURICET, his physician, first saw him ten days afterwards, the shoulder and arm were very tender and swollen, and the forearm was always kept in a half-bent position, and in a state of pronation. Anodyne embrocations removed the pain in the course of eight days; but the patient could not execute the movements of the shoulder-joint at all. Half a grain of the alcoholic extract of nux vomica was then given twice a-day in the form of a pill. The movements of the joint soon after gradually returned. At first they were involuntary, and limited in extent; but by and bye they became much more free, and the patient acquired the command of them. After sixteen days of this treatment, during which the pills were increased to four daily, the joint was restored completely to its natural state.

"Two boys, one thirteen, the other fourteen years of age, had been liable from their infancy to nocturnal incontinence of urine. M. Mauricet, who was consulted by their father, resolved to try the effect of the extract of nux vomica, and gave each of them half a grain night and morning. In three days the incontinence disappeared, and it did not return so long as the remedy was taken. In fifteen days the remedy was discontinued, but the malady returned soon afterwards. The nux vomica was resumed, and with the same success. It was again omitted, and the complaint again returned. At last the extract being again resumed, and taken without intermission for a month, the children were radically cured."—*Ed. Med. and Surg. Jour. July*, 1827, *from Archives Generales de Medecine, Mars*, 1827.

Camphor in Rheumatism.—M. AMABLE CHEZE has communicated to the Medical Society of Lyons, many cases of acute rheumatism, cured by general fumigation with camphor; he assists the profuse perspiration which it induces by appropriate means.—*Ann. de la Med. Phys. Avril.* 1827, *from the Compte Rendu, par J. M. Pichard, D. M.*

ORIGINAL INTELLIGENCE AND NOTICES.

We have received an interesting report of a fatal case of *Dispepsia*, from Dr. Elisha Coons, of Alabama.

The investigation, conclusions and practice in the case, prove the author competent, and ingenious in his profession. He understood and treated well the disease. But such complications and results of dispepsia, in young and middle aged persons, are common, especially in large cities, and villages, where fashion gives shape to ladies, opposite to their natural forms.

The liver is, more or less, implicated in all cases of dispepsia, especially in its last fatal stages.

The sympathies of a disordered stomach, with one person, will be with the brain; and sick head-ache, or chronic inflammation of its membranes, will be the result. With another, the lungs; and dispeptic phthisis will be the termination.—A third, to the heart; when a polypus, extreme irritability, or softening of that organ, or a serous affusion of its membranes will conclude the disease: whilst a fourth, dies with all of these viscera comparatively sound; but his liver will have suffered disorganization.

In the history of this case, we are told, that, "her health was generally good, until her marriage, and first accouchment." This is no unusual occurrence. During the period of gestation, many chronic diseases are suspended, as though the importance of creation, equalled all other concerns of nature; and that the malignancy and progress of disease, were suspended, for the all-important purpose of perfecting a new being. That diseases of the chest are palliated, and those of the abdomen aggravated, during pregnancy, we consider doubtful, especially when there is much derangement of the abdominal, mucous membrane. Both are more or less suspended, ordinarily, during this period ,and either will suffer, when so predisposed, previous to conception, shortly after delivery. W.

The paper received from M. B. S. is one involving considerable interest; but the writer will recollect, that the report of all singular, and anomalous cases, should be sanctioned by a responsible name:—he, has not favoured us with any responsibilities.

There are, contained in the communication, many highly interesting points. The report is worthy of a place in any of the Medical Journals of our age. But the repoter will understand, that, we do not believe in "miracles," and before he can appear in our pages, must investigate, at least, the natural causes of recovery, from a concussion, or dislocation of the cervex, certified by his legal name, and place of residence. We should be highly pleased, to receive the case, in accurate detail, upon the above conditions. W.